S. HRG. 101-848

COASTAL BARRIER RESOURCES ACT AMENDMENTS OF 1990

HEARING

BEFORE THE

SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION

OF THE

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS UNITED STATES SENATE

ONE HUNDRED FIRST CONGRESS

SECOND SESSION

ON

S. 2729

A BILL TO AMEND THE COASTAL BARRIER RESOURCES ACT AND FOR OTHER PURPOSES

JULY 11, 1990

Printed for the use of the
Committee on Environment and Public Works

U.S. GOVERNMENT PRINTING OFFICE

33-662 WASHINGTON : 1990

For sale by the Superintendent of Documents, Congressional Sales Office
U.S. Government Printing Office, Washington, DC 20402

S321-47

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

QUENTIN N. BURDICK, North Dakota, *Chairman*

DANIEL PATRICK MOYNIHAN, New York	JOHN H. CHAFEE, Rhode Island
GEORGE J. MITCHELL, Maine	ALAN K. SIMPSON, Wyoming
MAX BAUCUS, Montana	STEVE SYMMS, Idaho
FRANK R. LAUTENBERG, New Jersey	DAVE DURENBERGER, Minnesota
HARRY REID, Nevada	JOHN W. WARNER, Virginia
BOB GRAHAM, Florida	JAMES M. JEFFORDS, Vermont
JOSEPH I. LIEBERMAN, Connecticut	GORDON J. HUMPHREY, New Hampshire
HOWARD M. METZENBAUM, Ohio	

DAVID M. STRAUSS, *Staff Director*
ROBERT F. HURLEY, *Minority Staff Director*

SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION

MAX BAUCUS, Montana, *Chairman*

DANIEL PATRICK MOYNIHAN, New York	JOHN H. CHAFEE, Rhode Island
GEORGE J. MITCHELL, Maine	ALAN K. SIMPSON, Wyoming
FRANK R. LAUTENBERG, New Jersey	DAVE DURENBERGER, Minnesota
BOB GRAHAM, Florida	JOHN W. WARNER, Virginia
JOSEPH I. LIEBERMAN, Connecticut	JAMES M. JEFFORDS, Vermont
HOWARD M. METZENBAUM, Ohio	GORDON J. HUMPHREY, New Hampshire

CONTENTS

OPENING STATEMENTS

	Page
Baucus, Hon. Max, U.S. Senator from the State of Montana	1
Chafee, Hon. John H., U.S. Senator from the State of Rhode Island	2
Lieberman, Hon. Joseph I., U.S. Senator from the State of Connecticut	10

WITNESSES

Barr, Mike, cochairperson, Coastal Barrier Relief Fund	25
Prepared statement	99
Jannereth, Martin, Supervisor, Great Lakes Shorelands Management Unit, Michigan Department of Natural Resources	11
Prepared statement	50
Koutnik, Frank, Program Administrator, Division of Emergency Planning, Florida Department of Community Affairs	12
Prepared statement	56
Laborde, Jose E., Secretary, Department of Natural Resources, Commonwealth of Puerto Rico	19
Prepared statement	64
Newsome, Sharon, vice president for resources conservation, National Wildlife Federation	24
Prepared statement	73
Letter to Senator Chafee	94
Turner, John F., Director, Fish and Wildlife Service	4
Prepared statement	39

ADDITIONAL MATERIAL

Coastal States Organization, position paper	112
S. 2729	133
Statements:	
Fascell, Hon. Dante B., a Representative in Congress from the State of Florida	109
National Association of Realtors	114
Di Prete, Hon. Edward D., Governor, State of Rhode Island	144

COASTAL BARRIER RESOURCES ACT AMENDMENTS OF 1990

WEDNESDAY, JULY 11, 1990

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION,
Washington, DC.

The subcommittee met, pursuant to notice, at 10:04 a.m. in room 406, Dirksen Senate Office Building, Hon. Max Baucus (chairman of the subcommittee) presiding.

Present: Senators Baucus, Chafee, Lieberman, and Graham.

OPENING STATEMENT OF HON. MAX BAUCUS, U.S. SENATOR FROM THE STATE OF MONTANA

Senator BAUCUS. The meeting will come to order.

The Subcommittee on Environmental Protection convenes today to consider legislation introduced by Senator Chafee, myself, and other members to expand the Coastal Barrier Resources System.

This system, which was established by the 1982 Coastal Barrier Resources Act, consists of 450,000 acres in 186 undeveloped and unprotected areas on the coastal barrier islands that extend from the State of Maine to the State of Texas. Federal expenditures, such as highway funds, wastewater treatment grants, and new flood insurance coverage are prohibited within these coastal barrier areas.

The sound premise of the 1982 law is that the Federal Government should not use its resources to support the development of unstable and storm-prone coastal barrier islands because it results in increased loss of life, damage to fisheries and wildlife, and wasteful Federal spending.

Last September this subcommittee held a hearing to consider the Interior Department's report to Congress which recommended adding to the Coastal Barrier System nearly 800,000 acres of barrier islands and wetlands along the Atlantic and Gulf Coasts. Under a 1988 law, the Interior Department also has identified 112 barrier island areas along the shoreline of the Great Lakes that it believes are appropriate for inclusion in the system.

The bill under consideration this morning includes most of the Administration's recommended changes to the existing Coastal Barrier System and adds the appropriate areas which are identified in the Great Lakes.

Senator Chafee was a principal author of the Coastal Barrier Resources Act, and he is to be commended for developing this legislation. I look forward to hearing what Director Turner and the other

witnesses this morning have to say about the Interior Department's recommendations and the other provisions of this bill. It is my hope that the committee will be able to report this bill in a timely manner so that the Congress can complete action this year on the first major expansion of the Coastal Barrier System.

Having said that, let me add a final note of caution. I, for one, certainly am willing to consider modifications to the Interior Department's recommendations on the bill, but I want to make it clear to those who may seek to have areas kept out of the system that the burden falls on them to show that the Interior Department's recommendations are not appropriate. I am not willing, however, to revisit the 1982 boundary decisions made by the Congress in establishing the Coastal Barrier Resources System except where there is very clear evidence of an error.

With that, it is my honor to turn to the principal sponsor of the legislation, Senator Chafee, who has been a very strong advocate in protecting coastal barriers.

Senator Chafee.

OPENING STATEMENT OF HON. JOHN H. CHAFEE, U.S. SENATOR FROM THE STATE OF RHODE ISLAND

Senator CHAFEE. Thank you very much, Mr. Chairman, and I want to thank you for holding this hearing. I think it is a further tribute to you as a true environmentalist and as an environmentalist with national concerns, because clearly, barrier beaches and barrier islands aren't of great concern to your home State. Yet you have undertaken to help with this legislation, as is evidenced by this hearing we are having here today. So I want to thank you very much for what you've done.

As you mentioned, I've been deeply involved with this for many, many years. Every once in a while here in Congress we do something right, more often than not, and this was one of those pieces of legislation that is truly good in concept and that has worked out successfully. The savings are hard to estimate, but I've seen estimates from the Department of Interior that suggest that $800 million, which is a little short of a billion dollars, has been saved as a result of the legislation. I'm not sure if that even includes the flood insurance provisions that you know accompany it.

Now, in accordance with the bill that we passed in 1982, there is a provision that Interior will investigate and come up with further recommendations, on which we are having the hearing today. It is rather interesting, if you will recall, that in the initial legislation we just did the Atlantic Coast and the Gulf Coast, and now we're expanding this because other areas of the country have found that this is good legislation. So we're dealing not only with the Great Lakes, the Virgin Islands, Puerto Rico, plus extensions within the Atlantic and Gulf Coasts themselves.

So, Mr. Chairman, I look forward to the hearing today. I have a statement that I would like to submit for the record if I could, and furthermore, Mr. Chairman, I have a letter here from the National Wildlife Federation that speaks on behalf of 97 organizations—which in anybody's league is a lot of organizations—many of them in Florida, extending from organization one, American Littoral So-

ciety, and ending up with the Western Michigan Environmental Action Council, and 95 organizations in between. So I will submit this also for the record. [See p. 94.]

Thank you, Mr. Chairman.

[Senator Chafee's statement follows:]

OPENING STATEMENT OF HON. JOHN H. CHAFEE, U.S. SENATOR FROM THE STATE OF RHODE ISLAND

Mr. Chairman, I appreciate your support in scheduling this hearing on S. 2729, the Coastal Barrier Resources Act Amendments of 1990.

The Coastal Barrier Resources Act is a law which makes good economic and environmental sense. The bill we are considering today builds on the 1982 Act and more than doubles the reach of the Coastal Barrier Resources System. The bill would add to the System new areas recommended by the Department of the Interior in their "Report to Congress", including acreage in the Florida Keys, Puerto Rico and the Virgin Islands, and undeveloped coastal barriers along the coasts of the Great Lakes. The bill would also include over 1 million acres of federally-owned coastal barriers. And, S. 2729 contains a provision which allows states to elect to have undeveloped coastal barriers which are owned and protected at the state or local level included within the Coastal Barrier Resources System.

Barrier islands and beaches are areas which are uniquely important when it comes to protecting aquatic habitat and uniquely dangerous when it comes to bearing the brunt of hurricanes and major storms. The Coastal Barrier Resources Act was designed to ensure that Federal resources would not be used to subsidize development in undeveloped coastal barriers. According to the Department of the Interior, an estimated $800 million in federal dollars have been saved since establishment of the Coastal Barrier Resources System in 1982.

While this Act gets the Federal Government out of the business of subsidizing high-risk development on undeveloped barrier islands, it is important to note that neither current law nor the legislation under consideration today imposes any regulations on landowners. Private property owners are free to do what they will on their land, but they do so at their own financial risk—not at the expense of the Federal taxpayer.

Barrier islands, bays and beaches are the first line of defense protecting the mainland from the wind and wave energies associated with major storms and hurricanes. Last year, Director of the National Hurricane Center Dr. Robert Sheets spoke of the destructive power of hurricanes reminding the Subcommittee of the hurricane at the turn of the century that killed over 6,000 people in Galveston, Texas. Dr. Sheets brought slides showing the property destruction on barrier islands along the coast of South Carolina due to Hurricane Hugo. And, he noted that, after a lull of several decades, hurricane activity seems to be increasing.

Over-development in coastal barrier areas increases the risk of loss of life due to major storms as it becomes more and more difficult to evacuate crowded areas with limited routes of egress. And, through the National Flood Insurance Program and our disaster relief programs, the taxpayer is the one left holding the bag in the aftermath of these storms.

Approximately 75% of our nation's population lives with 50 miles of the coast. Consequently, the development pressures on our coastal barriers are enormous. These pressures contribute to the pollution of coastal waters and contribute toward destruction of the fertile aquatic habitat protected by coastal barriers which is essential to the survival of innumerable species of waterfowl, fish and wildlife.

By prohibiting most Federal expenditures on undeveloped coastal barriers, this bill removes the numerous Federal incentives for developments which increase risk to humans and to fish and wildlife habitat, while saving the Federal treasury hundreds of millions of dollars.

The Department of the Interior and the states, towns and individuals with whom they consulted have put years of effort into developing the maps of the undeveloped coastal barriers which will be included in the System through this legislation. I will be working with my colleagues to ensure that the maps of these undeveloped areas are still up-to-date. The sooner we get these areas in the System, the better.

Mr. Chairman, by this morning, every Senator will have received a copy of a letter from over 90 environmental and public interest groups, including the American Red Cross and the National Taxpayers Union, endorsing this bill. The House Merchant Marine and Fisheries Committee has already approved legislation which is similar to S. 2729. I am hopeful that we can move S. 2729 through the Committee

this summer and complete action on the Coastal Barrier Resources Act Amendments this year.

I look forward to hearing from our witnesses.

Senator BAUCUS. Thank you, Senator. The statement and the letter will be included in the record.

We will begin first with Mr. Turner, Director of the U.S. Fish and Wildlife Service.

We are honored to have you here, Director. Why don't you proceed in any manner that you wish.

STATEMENT OF JOHN F. TURNER, DIRECTOR, U.S. FISH AND WILDLIFE SERVICE, DEPARTMENT OF THE INTERIOR ACCOMPANIED BY FRANK McGILVREY, U.S. FISH AND WILDLIFE SERVICE; JUERGEN REINHARDT, U.S. GEOLOGICAL SURVEY; AND AL GREENE, SCIENCE DIVISION, NATIONAL PARK SERVICE

Mr. TURNER. Good morning, Mr. Chairman. It is certainly a pleasure for me to appear before you this morning. You have my formal statement for the record.

Senator BAUCUS. I apologize for interrupting. Each witness will have five minutes.

Mr. TURNER. Mr. Chairman, thank you.

I am pleased to appear before you on behalf of the Administration in strong support of S. 2729, and personally on behalf of the Administration and Interior—indeed, people all over the United States—let me take this opportunity to salute you and Senator Chafee for what I think has been one of the model environmental landmark statutes for this country where we've not only protected some irreplaceable resources, but also saved substantial funds of the taxpayers of this country.

I am also pleased to support the bill because most of the acreage proposed to be added to the system is aquatic habitat, that is wetland habitat, and certainly contributes to the President's goals, the very worthwhile and ambitious goals of no net loss of our Nation's wetland resources.

As you are aware, Mr. Chairman, the effort in working with this committee through the 1980s has been a cooperative effort in Interior. We've had three bureaus involved, and they are with me this morning to answer your questions. I have Frank McGilvrey from the Fish and Wildlife Service, who has been a coordinator; I have Dr. Juergen Reinhardt, who is a geomorphologist with the USGS; and Dr. Al Greene, with the Science Division of the National Park Service.

Mr. Chairman, as you stated and as Senator Chafee stated, it's our impression that indeed, the Coastal Barrier Resource Act has been effective for this Nation. In our review of aerial photographs and on-site visits, looking at some 186 sites, only 10 of those have had substantial development, and it seems that most of those occurred during the first year, the grace period. Once implemented, it has been very effective.

Just a few comments on the specific provisions.

We are pleased that the legislation proposes to almost double the existing acreage, which is now about 450,000 acres. An additional 790,000 acres would be along the Gulf and Atlantic Coasts and, as

you are aware, some 57,000 acres would be new additions along the Great Lakes. That would be the first for that part of the country.

We are pleased to see in the bill the inclusion of secondary barriers. These are important areas that often occur in large embayments and are affected by the energy coming off the ocean.

Third, we are pleased to see the inclusion of associated aquatic habitat. Indeed, these areas are vital, as they produce millions of fish, shellfish, birds, and animals and other wildlife, and they are so vital to this country's recreational and commercial fishery needs.

Fourth, we are pleased to see a change in the definition of coastal barriers which would delete unconsolidated sediment. The impact of that, of course, would be to pick up some areas that function as coastal barriers; i.e., they protect coastlines from wave and tidal action, and they also have some marvelous biological attributes. This change would pick up areas in the Florida Keys where we have cemented carbonate deposit. It would also pick up areas in the Caribbean which have silt and clay—that would be in Puerto Rico and the Virgin Islands—and also protect some of the wonderful coastal areas along Maine, which are mostly bedrock.

We think it is appropriate to include Federal and private otherwise-protected areas. That would include units of the refuges of the Fish and Wildlife Service and the National Seashores and units of the National Park Service. It is certainly appropriate that we be asked to play by the same rules as the private landowners of this country.

Also, as a former State legislator, I think it is a useful option which provides for State and local governments to be included by the Governor.

Mr. Chairman, our estimates are that indeed this would save money. Depending on the assumptions, this bill would probably save at least a billion dollars over the next 20 years, just in the initial infrastructures that you would assist developers with; and, of course, if you had a disaster it would be several times that.

In conclusion, Mr. Chairman, our personnel in Interior have made site visits in determining the development status and the appropriateness of the acreage you have before you, and we continue to look forward to offering technical assistance to this committee.

Again, let me say that I commend this subcommittee, and especially you two, for the leadership that you've given in this most important area. Thank you.

Senator BAUCUS. Thank you, Mr. Director.

I have a statement from Congressman Fascell (see p. 109), wherein he has some reservations about the total acreage that is recommended for inclusion in the system. As I glance at his statement, essentially he says—if I understand him correctly—that in the House bill, just under half of the total acreage proposed for inclusion would be included in the House approach.

What's your reaction to that?

Mr. TURNER. Well, Mr. Chairman, I might ask Frank McGilvrey to respond to that because he would be more familiar than I with all the proposed units.

Senator BAUCUS. I'm referring just to the Florida Keys.

Mr. MCGILVREY. Yes, I understand that.

Well, of course, the Florida Keys have been a controversial area from the beginning, but the Secretary of the Interior decided at a very early part of the study that the Florida Keys do function as coastal barriers, even though they are not primarily unconsolidated sedimentary material. But they are affected by wind, wave, and tidal action. They do protect the very vital natural resources of the Florida bay. And it should be pointed out that, although the Keys themselves may not move in the face of a hurricane, the structures built on the Keys would certainly move in the face of a hurricane.

So we feel that the Florida Keys do fit the criteria that were developed by the Department of the Interior at the beginning of the study, and that they should be included in the legislation.

Senator BAUCUS. So it's your view that even though the composition of material in the Keys is different from other coastal barriers, that the consequence of hurricanes and other weather action on either the material itself or on structures that may or may not be built there are the same? Is that your view?

Mr. MCGILVREY. Yes, sir, that's true. In addition I might point out, of course, that the Florida Keys are in an extremely highly hazardous area as far as hurricanes are concerned. They have been extremely lucky over the last 20 years to not have a major hurricane. And secondly, to evacuate the Florida Keys in the face of a major hurricane is virtually impossible.

Senator BAUCUS. The National Wildlife Federation has some suggestions, essentially clarifying that Federal assistance is prohibited for any project that directly affects development within a coastal barrier unit, even if the project occurs outside the system. They also recommend directly including in the Coastal Barrier System all eligible areas currently protected by States and local governments, so it is not optional. They further recommend including eligible lands slated for disposal by the Resolution Trust Corporation and the Federal Deposit Insurance Corporation. Further, the National Wildlife Federation recommends including additional military and Coast Guard plans that qualify for addition to this system, and also mapping of eligible Pacific Coast areas.

I would like your reactions to those recommendations.

Mr. TURNER. Well, Mr. Chairman, at this time I don't think we could give you an opinion on that many additions. I certainly couldn't on behalf of Interior, but would be pleased to work with this committee and look at those specific areas and try to give you our response.

Senator BAUCUS. Could you do that, please? Unless either of the other two there could give us a little information at this point on some of those recommendations.

Mr. MCGILVREY. Well, in our report we discuss all of those areas except RTC, and all of them were discussed at great length in the Department before the final report went to Congress.

As far as military lands are concerned, it was the Department's position that military lands are essentially excluded by the Act anyway, so there's not a major reason to include them in the system.

Also the purposes of the "otherwise protected" areas are conservation oriented; therefore the Department did not feel that there was any need to include them in the system.

As Mr. Turner has pointed out, however, the Department is not adverse to the Congress including National Park Service and Fish and Wildlife Service lands, if it so desires.

Senator BAUCUS. Thank you.

Senator Chafee.

Senator CHAFEE. Thank you, Mr. Chairman.

I think that the points of contention arises when we move into the more solid type of islands. As you recall, the original legislation dealt with what the Act then colloquially referred to as the "barrier beach and barrier island" legislation. And barrier beaches and barrier islands, to me and to the public, had a certain meaning. In other words, they were fragile, somewhat mobile masses of land, low-lying, usually. Behind them would be brackish water in many instances. Moving from across there you come to the swampland, and then probably some meadows and some rising land. That would be a typical barrier beach, and perhaps a barrier island.

The philosophy behind the legislation was that these were very precious sections of land—precious environmentally for the wetlands that were behind them; precious for protecting those wetlands; and precious for protecting the lands behind them. So the philosophy was that the United States Government didn't have enough money to buy all these places, but at least we weren't going to subsidize the development of them. If somebody is rich enough to build a house out there, that's their business. They can do it, and build a road to it. We can't keep them from doing it.

I was interested to hear your statistics, Mr. Turner, that indicated that even though we didn't in any way take these sections of land, as I mentioned, that development has been relatively modest—did you say something like 5 percent?

Mr. TURNER. Mr. Chairman, 10 of the 186 sites, so that would be about 5 percent, and probably significantly less once the Act was implemented.

Senator CHAFEE. I suppose a major factor in all that was companion legislation that didn't come from this committee—it came from the Banking Committee, actually—dealing with flood insurance, which is a necessary component of all this. They couldn't get flood insurance if they didn't have it, and if they had it they could keep it but only get one bite out of the apple; if their house were more than 51 percent destroyed, they couldn't get the flood insurance again if that house was on one of these sections.

What I look for from the other witnesses is, when you move into a more solid type of island—for example, the Florida Keys; the Florida Keys, at first blush, wouldn't seem to present the description that we traditionally have of the barrier islands. They are "barrier" to the extent that they form a protective shelter for parts of Florida, but they're not mobile islands moving back and forth, sands building up or being destroyed.

If you, Mr. Turner, or one of the gentlemen with you could perhaps develop a little more why—because I am seeking for the record material as to why the Florida Keys were included—I think that would be helpful to enable us to proceed.

Mr. TURNER. Mr. Chairman, I will ask Juergen Reinhardt to respond to that.

But the Florida Keys certainly function as barrier resources in protecting the coastline. They have very productive and rich aquatic systems behind them. The question comes back to a statement that you made. In the assumptions underlying this legislation, should the American taxpayers support with infrastructures, roads, bridges, sewers, and then rebuild such areas that have that kind of risk? And I think that's the underlying assumption, that this legislation has said no.

Based on those criteria, the Florida Keys fit. But we certainly have a distinguished geomorphologist here, and I will call on Dr. Reinhardt.

Mr. REINHARDT. Thank you.

Senator Chafee, I think there are three really important components to the definition. Probably the most important component has to do with the protective function. In other words, there needs to be something protected; some component of wetland; and eventually, the fact that the coastal barrier buffers the energies of wind, wave, and tidal energies eventually for the mainland or some area behind the coastal barrier. So the protective function is one aspect.

The fact that the area is affected by wind, wave, and tidal energies is a second component in the definition.

The third component——

Senator CHAFEE. The component is affected by wind and wave—you mean the island?

Mr. REINHARDT. The island itself, right, that coastal landform that we're calling a coastal barrier.

The third component has to do with composition, and that's really where I think we've had the most trouble in terms of looking at the extreme variability in composition for coastal barriers on all shorelines of the United States. The shorelines in Maine, for example, change quite a lot from summer to winter because of differences in wave climate. In the winter, often, beaches that have sand and gravel on them during summer have much more in the way of bare rock.

So ultimately, how do you deal with an area that changes quite a lot seasonally, from season to season, after major storms? There is a real problem relative to the compositional definition, then, of that coastal landform.

When we go to areas that are quite different in terms of temperature, climate, and geologic history or setting—looking, for example, at the Florida Keys or the Florida Platform—very simply, because we don't have the supply of sand to the coastal zone; that is, sand coming from rivers along much of the area south of Miami, the definition there changes a little bit. We see much more in the way of organic components; that is, shells of animals that live in the water that make up the coastal barrier. It is debris from coral reefs living offshore, as well as bedrock that has been broken up by action of storms, that makes up the beach and the coastal landforms.

There again, because there is a much larger organic component than in what we typically think of as a coastal island or coastal barrier, we have some variation in the definition that was initially part of the 1982 legislation, and that was in large part the reason for this expanded definition, recognizing that there are differences

in climate, differences in wave energies at different times of the year and from year to year, and because it really is a changing and dynamic system that has different compositions at different times.

Senator CHAFEE. Well, thank you very much.

Thank you, Mr. Chairman. I see my time is up.

Senator BAUCUS. Go ahead if you have more questions.

Senator CHAFEE. Well, obviously, this is going to be a point of contention. I see that representatives from Florida and Puerto Rico will be testifying here. It's going to take a lot of time for us to become familiar with each of the areas.

Mr. Chairman, I don't envy you. When I was in your shoes when we were doing this in 1982, I spent a lot of time talking to Senators and got to know Daufuskie Island intimately, and a whole series of other places in Alabama.

So furthermore, the House bill which has emerged from the committee has less from the Keys than we do. So I want to be helpful on this and become as familiar as I can with the rationale and with each of the areas that we have delineated.

Thank you.

Senator BAUCUS. Thank you, Senator.

Dr. Turner, apropos Senator Chafee's comment, what do you know about the Fox Marsh on the southwest corner of North Bass Island in Ohio? [Laughter.]

Mr. TURNER. Mr. Chairman, as you know, my home is in Moose, Wyoming. I'm a newcomer here.

Senator BAUCUS. I'll tell you, before this is over you'll probably know a lot more than you want to know about that area. [Laughter.]

Senator BAUCUS. Actually, Senator Metzenbaum asked me to submit a question on that point. The Department of Natural Resources of the State of Ohio has recommended an additional area for inclusion, namely, Fox Marsh on the southwest corner of North Bass Island. I don't expect you to know much about it at this point, but Senator Metzenbaum does want that area included, and at the appropriate time we would like to hear from the Department.

Mr. TURNER. Mr. Chairman, we do have Dr. Greene from the National Park Service here who did the work on the Great Lakes, and I don't know whether he would like to comment or not.

Senator CHAFEE. Let me just say this. For every one of those who want something included, about forty want something excluded.

Senator BAUCUS. That's right.

Mr. GREENE. I'm not positive about this, but I think the area is on an island which is privately owned, and it is primarily composed of vineyards. The area that you look at on a map looks like a classic bay barrier. However, I talked to the DNR in the State of Ohio, and I think most of the coast is very steep and rocky. However, there is a bay barrier which is less than a quarter of a mile, and I think originally it was probably not recommended for inclusion in the system because, as you know, one of the criteria is that the beach must be at least a quarter of a mile long. However, it has great ecological significance and there has been quite a bit of interest in it.

Senator BAUCUS. Thank you. I am sure Senator Metzenbaum will be interested in that response.

Senator Lieberman, do you have any questions or comments?

OPENING STATEMENT OF HON. JOSEPH I. LIEBERMAN, U.S. SENATOR FROM THE STATE OF CONNECTICUT

Senator LIEBERMAN. Thank you, Mr. Chairman. I have an opening statement which I would ask to be included in the record.

Senator BAUCUS. It will be included.

[Senator Lieberman's statement follows:]

OPENING STATEMENT OF HON. JOSEPH I. LIEBERMAN, U.S. SENATOR FROM THE STATE OF CONNECTICUT

I want to commend and thank Senator Chafee for his leadership and his hard work to protect the Coastal Barrier Resources of our nation. I am proud to be a co-sponsor of S. 2729, The Coastal Barrier Resources Act.

Familiarizing oneself with the stresses placed on our coastal barriers unfolds an all-too-common story, and a lesson we seem to have to learn over and over when it comes to environmental protection. The more valuable a resource, the more people want to use it. And the more it is used, the sooner it gets used up.

It's important for us to remember with regard to our coastal resources that they serve a purpose—an important purpose—beyond providing nice addresses, handsome views, energy opportunities, recreational treats, and even defense needs. Coastal barriers also play an integral role in the protection of our coastline. They are barriers to heavy wave and storm action. The wetlands associated with them are fish and wildlife nurseries, feeding-grounds, and resting habitats. To ignore the ecological function of Coastal Barriers in order to provide short-term benefits to development is foolish; it ultimately places lives at stake.

That, particularly, is why I support Senator Chafee's efforts to ensure that the federal government does not subsidize the development of these important resources, either by the provision of federal flood insurance or federal funds for infrastructure projects. To develop them is to ultimately lose them, and the federal government should not be in the position of paying—doubly—for this loss.

Nor should we be in the position of encouraging private citizens to do so. Again, I applaud the leadership of Senator Chafee for introducing this bill and of Senator Baucus for holding the second hearing in a year on this important subject. These are times when the public is looking for the U.S. government to take the lead on wise protection of our ecological resources, and I am grateful to join my two colleagues in this example.

Senator LIEBERMAN. Just one brief question.

As I suspect you know, Mr. Turner, the House bill provides for a comprehensive mapping of the Pacific Coast, while our bill does not. I wondered whether you think it makes sense to map—and perhaps include barriers—along the Pacific Coast as well.

Mr. MCGILVREY. The Department's position is that in 1982, Congress specifically excluded the Pacific Coast, so we—the Department—decided that we should continue to do so unless the Congress requested that we map the Pacific Coast. And if the Congress does so, as is included in the House legislation, we will certainly be glad to do so.

There are coastal barriers on the West Coast that qualify under our criteria. There are not near as many of them, and they are nearly as extensive, but there are some there.

Senator LIEBERMAN. But you don't have a recommendation either way for us?

Mr. MCGILVREY. No, sir.

Senator LIEBERMAN. Thank you.

Senator BAUCUS. Thank you very much, Director. We appreciate your testimony.

Mr. TURNER. Thank you, Mr. Chairman.

Senator BAUCUS. Our next witnesses are in a panel. We have three: Mr. Martin Jannereth, Supervisor, Great Lakes Shorelands Management Unit, from Michigan; Mr. Frank Koutnik, Program Administrator, Division of Emergency Planning, from Florida; and the Honorable Jose Laborde, Secretary, Department of Natural Resources, Commonwealth of Puerto Rico.

Okay, Mr. Jannereth, why don't you proceed?

STATEMENT OF MARTIN JANNERETH, SUPERVISOR, GREAT LAKES SHORELANDS MANAGEMENT UNIT, MICHIGAN DEPARTMENT OF NATURAL RESOURCES

Mr. JANNERETH. Thank you, Mr. Chairman and members of the subcommittee. I appreciate the opportunity to testify today on S. 2729, to amend the Coastal Barrier Resources Act.

Of the approximately 112 coastal barrier units proposed by the Department of the Interior in the Great Lakes, 75 units, or 67 percent, are in Michigan. Consequently, Michigan has the largest stake of any Great Lakes State in the proposal to incorporate these Great Lakes areas into the Coastal Barrier Resources System.

We consider the proposed inclusion of these units into the system to be supportive of Michigan's efforts to protect these areas and discourage unwise development.

We believe the 1982 Coastal Barriers Resources Act was an historic and innovative step toward placing the financial burden of storm losses and natural resources depletion away from the Federal Government and on the shoulders of property owners who buy or build in hazardous and sensitive areas. Expansion of this program to the Great Lakes makes sense in terms of broadening the scope of the Act into a truly national program.

Michigan has been afforded ample opportunity to review the proposed coastal barrier sites. Starting in 1984, we have reviewed and proposed many changes, including the addition of six units to the proposed list. Dr. Al Greene, Great Lakes Coordinator with the National Park Service, is to be commended for his cooperative efforts. The working relationship he has maintained with Michigan has been deeply appreciated. As a result, we have no concerns with the boundaries of the proposed units in Michigan.

We have also reviewed some of the proposed coastal barriers with Dr. Greene to determine whether the sites met the definition of an "undeveloped barrier." This review led to the removal of at least two sites by the Department of the Interior, and modification of others which did not meet the criteria for an undeveloped area.

Michigan is satisfied with the proposal bill in S. 2729, which gives the Governor of each State the ability to recommend or "opt in" otherwise protected areas for inclusion into the Coastal Barrier System. Michigan has, however, a serious concern with the impact of the Coastal Barrier Resources Act Amendments of 1990 on our transportation network. The Great Lakes Coastal Barrier Act of 1988, Public Law 100-707, contained an amendment which exempted highways located within the State of Michigan from the Coastal Barrier Resources System, but because the Great Lakes' proposed coastal barriers were not a part of the Coastal Barrier System upon

passage of Public Law 100-707, the exemption of Michigan highways was never codified.

We believe the expansion of existing Michigan highways should be exempt from the Coastal Barrier Resources Act for two reasons.

The first is access. The present highway system in Michigan already passes through several of the proposed coastal barriers. Consequently, access to these areas is already sufficient to support development by non-Federal interests.

I would emphasize that the coastal barriers of Michigan are not barrier islands, where a bridge or causeway is required. They are part of the mainland. Since widening the highway for safety reasons would not increase access, we believe the intent of the Coastal Barrier Resources Act and its amendments would be met by exempting Michigan highways.

The second reason is critical habitat. Denial of funds to expand Michigan highways passing through coastal areas would force the selection of alternate routings which would be eligible for Federal funding. Road relocation would threaten interior wetlands and not reduce the access to the coastal barriers by the present road system.

If the exemption of Michigan highways is retained from the 1988 legislation, we support the inclusion of all areas in Michigan which meet the definition of an "undeveloped coastal barrier" into the Coastal Barrier Resources System.

Mr. Chairman, this concludes my statement concerning Michigan's position on S. 2729. I commend you and this subcommittee for your leadership in pursuing a reduction of inappropriate Federal expenditures.

Again, thank you for the opportunity to testify.

Senator LIEBERMAN [assuming chair]. Thank you, Mr. Jannereth.

Mr. Koutnik, you are listed next.

STATEMENT OF FRANK KOUTNIK, PROGRAM ADMINISTRATOR, DIVISION OF EMERGENCY PLANNING, FLORIDA DEPARTMENT OF COMMUNITY AFFAIRS

Mr. KOUTNIK. Thank you. I appreciate the opportunity to be here this morning to address you. I will only be addressing you from the perspective of an emergency management agency. I currently work with the Division of Emergency Management in the State of Florida.

Obviously, we have great concerns with people living on coastal barrier islands. From a coastal management point of view, they are living nightmares for us because we are the ones who have to respond to the pleas for help when people are trapped out there.

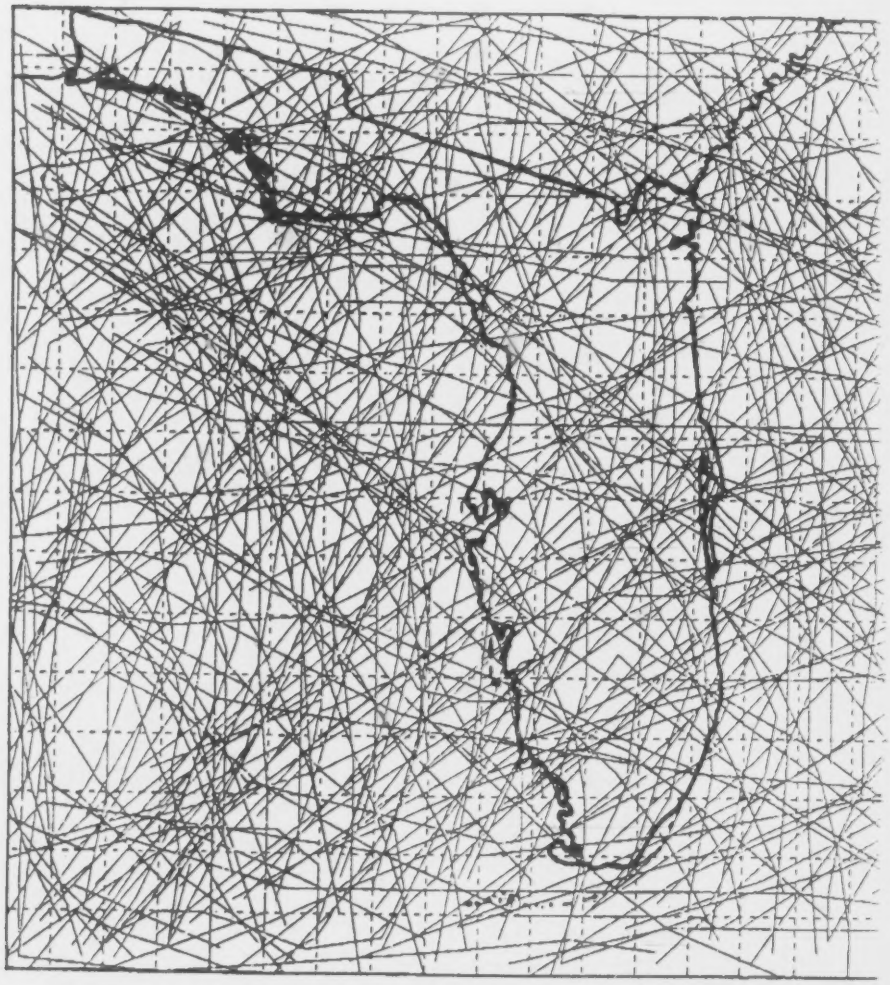
I want to give you just a couple of facts and figures about our State and give you a better perspective of how vulnerable we are.

According to the National Hurricane Center, we are number one. We will receive more hurricanes than any other State in the Nation on an annual recurrence interval of 1.3 per year. Eighty percent of our population lives in 35 of our coastal counties. Of the 900 new people every day that move into the State of Florida, 80 percent of them will also choose to live in one of those 35 coastal

counties, virtually none of them, ever having gone through a major hurricane.

If you have my testimony before you, I have provided a couple of maps and charts that I thought would be very interesting for you. One simply shows the number of hurricanes that have impacted the State of Florida since 1886. You can see that it looks like spaghetti over the State of Florida. It is an incredible map that was developed by our Department of Natural Resources. It shows how vulnerable our State is and will remain.

FIGURE ONE



Hurricane prone? The downside to its semi-tropical setting is Florida's being in harm's way from big storms. Shown here are the tracks of 136 hurricanes and 234 tropical storms that have hit or brushed the state since 1886. Source: The FSU Beaches and Shores Resource Center.

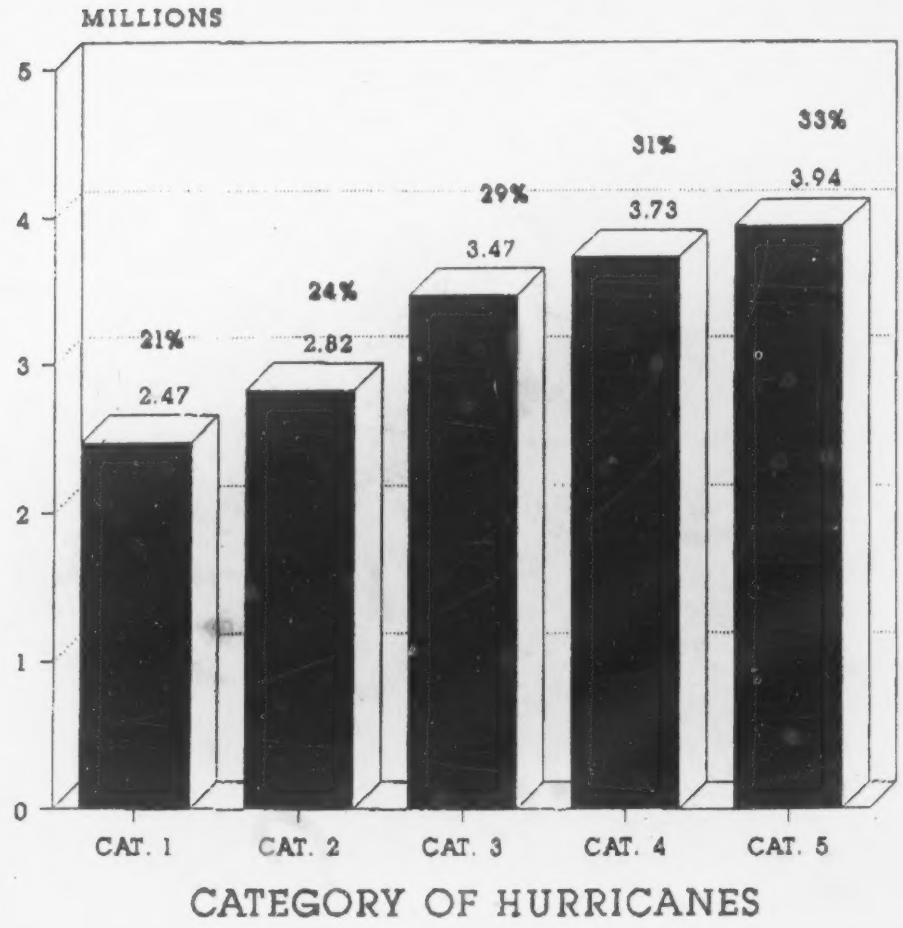
Mr. KOUTNIK. Also, the page following that is a simple bar graph that shows the number of people actually living in the coastal surge zones. These are not the people living in coastal counties. These are the number of people that actually live in the zones that will one day be inundated by a hurricane storm surge. As you are all aware, in Charleston, South Carolina, the thing that did all the

incredible damage on the barrier islands was the hurricane storm surge.

If you will look there, 21 percent or 2.47 million Floridians literally live in a Category 1 surge zone, meaning that one of every five people in our State lives in an area that would be impacted by every single category of hurricane, which is a dramatic problem for us.

FIGURE TWO

FLORIDA POPULATION VULNERABLE TO HURRICANES



Mr. KOUTNIK. If you were to overlay Hurricane Hugo over our State, which is figure 3 in my testimony, a 130-mile swath of hurricane-force winds—in South Carolina, it basically impacted one major urban metropolitan area, which was Charleston. You overlay that same hurricane, and the early predictions from the National

Hurricane Service had that thing veering right into Biscayne Bay, so we took a look at that. We played around with the help of the Hurricane Center and ran that thing right through Biscayne Bay and came out at Tampa. Seventy-eight major urban areas would have been impacted, versus the one in South Carolina, and 4.9 million people would have had to withstand hurricane force winds.

The losses compared to South Carolina would probably have been tenfold.

Area the size of Hurricane HUGO impacting Florida

Mr. KOUTNIK. Dr. Gray of the University of Colorado Atmospheric Science Department states it like this: "Florida is a sitting duck in the Sahel shooting gallery." The African Sahel region is the area where the major hurricanes form. He expects to see a return to an increased instance of intense hurricanes land-falling on the United States coast, with substantially greater hurricane-spawned property damage than has ever before been experienced. This is truly indicative of what we in Florida can expect to see.

We projected that a Hurricane Hugo over our State, using that swath, would have caused $10 billion worth of damage. That is substantial. We get very concerned about that. You have already

heard about the evacuation times in the Keys. One of the major components of evacuation, among the problems we face, is getting people off the barrier islands. The egress routes flood quickly, as in Sanibel Island. A minor subtropical hurricane, a tropical storm, inundated the only egress off of that island. Had that tropical storm elevated into a hurricane, every resident on that area would have been trapped out there with no possible way for State of Florida or Lee County officials to get those people off of there.

In 1935, that very incident happened in the Florida Keys, and it killed 400 people.

Also in the Florida Keys, the evacuation times—and I won't get into how they are derived—basically, those folks would have to leave up to 45 hours prior to the arrival of the hurricane.

FIGURE FOUR

EVACUATION CLEARANCE TIME
In hours

REGION	COUNTY	CATEGORY (1-3)	CATEGORY (4-5)
Southwest	Charlotte	10.4	10.4
	Collier	9.9	9.9
	Lee	17.2	17.2
	Sarasota	12.0	12.0
Withlacoochee	Citrus	10.75	10.75
	Hernando	11.0	11.0
	Levy	11.0	11.0
North Central	Dixie	10.1	10.5
	Taylor	11.2	11.2
East Central	Brevard	12.5	12.5
	Volusia	5.0	5.0
Northeast	Nassau	6.25	6.25
	Duval	8.75	11.25
	St. Johns	7.5	7.5
	Flagler	6.25	6.25
Treasure Coast	St. Lucie	14.0	14.0
	Indian River	9.0	9.0
	Martin	10.0	10.0
	Palm Beach	6.0	6.0
South Florida	Monroe	19.0	19.0
	Dade	10.5	11.5
	Broward	7.0	8.0
Tampa Bay	Hillsborough	16.0	16.0
	Pinellas	16.0	17.0
	Pasco	11.0	12.0
	Manatee	17.0	17.0
Apalachee	Franklin	6.0	6.0
	Gulf	5.5	5.5
	Jefferson	5.5	5.5
	Wakulla	5.5	5.5
West Florida	Escambia	14.25	17.0
	Santa Rosa	8.25	9.75
	Okaloosa	14.5	17.0
	Walton	9.5	11.25
	Bay	9.0	10.25

*Information extrated from the regional hurricane evacuation studies.

Mr. KOUTNIK. In conclusion, I believe—again, from an emergency management point of view—that the barrier islands pose the greatest problem for us from the emergency management perspective. They will require a tremendous amount of advance planning, a tremendous amount of allocation of resources once the hurricane is upon us. The public cost to repair will be extensive.

Last, the State's position on the Coastal Barrier Resources Act inclusions is summarized in the attachment to my testimony from our Governor, as it was submitted to Secretary Hodel. Basically, it says that the State is in support of the inclusions, with some minor technical revisions that we would like to see occur.

Thank you for this opportunity.

Senator LIEBERMAN. Thank you very much, Mr. Koutnik.

And now, Secretary Laborde, thank you for traveling to be with us. We look forward to your testimony.

STATEMENT OF JOSE E. LABORDE, SECRETARY, DEPARTMENT OF NATURAL RESOURCES, COMMONWEALTH OF PUERTO RICO

Mr. LABORDE. Thank you. Good morning, Mr. Chairman, Mr. Lieberman, Mr. Chafee. For the purpose of the record, my name is Jose Laborde, and I am the Secretary of Natural Resources of the Commonwealth of Puerto Rico.

Among the many duties of my Department, one of the most important is the protection and conservation of our coastal resources. We conduct research in marine and coastal biology and carry out diverse activities related to mitigation of coastal hazards. In cooperation with the Planning Board, the Department also administers the Coastal Zone Management Program of Puerto Rico.

Our reasons for opposing the inclusion of Puerto Rico in this legislation are several, but I particularly want to emphasize three of them.

First, the unique political association between the Government of the United States and the Commonwealth of Puerto Rico has to be considered. It was the principle of mutual consent that laid the foundation for the political relationship known as the "commonwealth status." The autonomy granted to Puerto Rico herein allowed the Commonwealth government to develop a comprehensive and centralized system of land use, which now regulates development and protects our coastal areas.

Second, the differences that exist between the Commonwealth's legal system and the legal systems of the coastal States leave many of the proposed areas already well protected under our unique planning and regulatory frameworks.

Third, geologic and geomorphic differences between the coasts of the islands and the broad, shallow, sandy coasts of the Atlantic and Gulf States make some of the proposed segments less susceptible to wipeout and less available for development.

Since the Department has considerable expertise on this subject, I will focus my testimony on this third aspect.

The Coastal Barrier Resources Act Amendments, as proposed, greatly increase the types of coastal formations eligible for protection as barriers. The original legislation was designed to protect unconsolidated linear deposits of sand and gravel, similar in form

and function to the well-known coastal barrier islands and spits of the East and Gulf Coasts of the United States.

At the outset of this testimony we need to clarify for the record that there are no offshore sandy barrier islands in Puerto Rico. The total volume sand in dynamic equilibrium with the offshore platform is far less on our island than anywhere on the Atlantic or Gulf Coasts of the United States. There is simply not enough sand in the system to build offshore barrier islands because the slope of the sea bottom is too steep and sand is constantly lost to the grade of the sea depths.

Our small island's rivers, likewise, contribute less sand to renew the offshore supply. The net effect is that our beaches are relatively narrow and, with the exception of high energy north coast beaches, they adjoin the mainland directly, often with no wetlands behind them.

Almost all of our rivers have sandspits at their mouths, but these spits are short, narrow, and very ephemeral in size and shape. Many of these rivermouth bars and spits have been designated as coastal barrier segments by the study group of the Department of the Interior, even though normal seasonal high flows reshape them every year, and they are public domain lands and thus not available for private development according to our laws.

The lack of large offshore sand reservoirs affects the appearance of Puerto Rico's coast. There are a few barrier spits, mostly formed of sand accumulations behind small islands that were originally offshore. Most of the other proposed segments now under consideration are segments of the coast of the mainland. As such, they do not represent the same degree of exposure as an offshore barrier island.

We believe that the proposed segments, in the main, are not comparable to mainland segments in their degree of isolation, difficulty of evacuation, geologic instability, or degree of exposure to reworking by tide, wind, and waves.

If all of the proposed coastal barrier segments in Puerto Rico are incorporated into the system, it will negatively affect government facilities built or planned in such locations which are necessary to provide or upgrade services to upland or inland areas that are already developed. Prohibitions on Federal spending would affect sanitary sewer or treatment plant upgrades in various proposed segments. These upgrades are for regional systems serving major metropolitan areas and have nothing to do with fostering development of underdeveloped coast. Protection of already legally-protected rivermouth bars in many of the segments is unnecessary and will hinder our flood mitigation projects, in the planning as well as the construction stage.

All of the rivermouth bars directly in front of the main river channel are public domain lands. They do not need the additional protection of inclusion into the system.

The Commonwealth has commented repeatedly that certain areas considered "undeveloped" or "unprotected" by the study group are in fact adequately protected or, in a few instances, already developed since the central government has evaluated and approved preliminary project plans. In other cases, because country homes in Puerto Rico are smaller in floor area than the minimum

size acceptable for an insurable structure, certain segments containing existing communities have been mapped as "undeveloped."

We wish again to state to this subcommittee that areas inside a designated natural reserve are protected. By the same token, segments that contain an approved development where the Planning Board, the Department, and other Commonwealth agencies have endorsed the projects after due evaluations, should not be mapped as "undeveloped." I believe that some additional segments as designated are too rock, too elevated, or not long enough to qualify.

I have brought my aerial photographs to demonstrate some of these problem areas. However, I would like to take this opportunity to invite any or all of you to visit the island and see for yourselves how different our proposed segments are from the long, low sand islands that this law was originally designed to protect.

Before I finish, I would like to bring to the attention of this honorable subcommittee the fact that Puerto Rico is in a very special situation. Being a country with a limited territorial extent and a high population density, it has experienced an economic growth comparable to that of other countries with greater resources. However, contrary to other nations within the region, it has managed to conserve its resources, and we hereby reaffirm our commitment to continue to do so.

I trust you will take these matters into consideration when deciding the fate of the Puerto Rican coastal barrier segments.

Thank you for allowing us the opportunity to present our position.

Senator LIEBERMAN. Thank you very much, Mr. Secretary. Again, thank you for coming here.

May I say just for the record how much I appreciate the leadership of Senator Chafee in this area and how proud I am to join him as a cosponsor of this bill. And perhaps consistent with that, I will yield to him for the first round of questions.

Senator CHAFEE. Thank you very much, Mr. Chairman, and I appreciate your support on this. As you can see from the testimony we've just had, this becomes contentious as we proceed. I think we all seek the same goal, and that is to preserve not only the fragile areas because of the environmental importance that they have, but also the importance that each of them has toward saving lives.

Let me ask Mr. Jannereth a question regarding exempting the highways in Michigan for safety only. I understand your argument there, about if you relocated the highway you might be in wetlands and do more destruction than we would be protecting if we followed through with the Act the way it is now.

Would you be willing to have that language limited to highway expansion for safety only?

Mr. JANNERETH. I guess I'm not in a position to say. I wouldn't want to give a formal position at this time, but that was the major concern brought out by the Department of Transportation, the safety issue.

Senator CHAFEE. Obviously, the whole purpose of the Act is to not encourage development. So if we're going to have a wetland or a barrier area and protect it under this legislation but still say, "Oh, it's all right to use Federal money to not only make a highway safer but to widen a highway so more people can get up

there," I'm not sure that we're following through on the very purposes of the Act. It runs counter to everything we're trying to do.

Mr. JANNERETH. Well, the concern from the Department of Transportation, especially on U.S. 2 on the Upper Peninsula, was that it is a primary road. Although there are other major State arteries that run through some of the proposed coastal barriers, the concern was that that road especially is very limited on its volume. They have already looked at relocating it and felt that the impact of putting it inland would significantly affect wetlands, and that left the only proposal, of expanding it where it is. They were concerned about the loss of Federal revenues to do that.

Senator CHAFEE. Well, thank you.

Mr. Laborde, I'm not familiar with either Puerto Rican law or how we handle various Federal legislation as it deals with Puerto Rico. In your first three points you were stressing that Puerto Rico is unique and questioning whether we have the authority to do what we are suggesting be done for Puerto Rico.

What happens, for example, under the Clean Water Act or Superfund? Do they all apply to Puerto Rico?

Mr. LABORDE. Yes, they do, sir.

Senator CHAFEE. Now, isn't that the Federal Government moving in and having restrictive land practices?

Mr. LABORDE. You are correct, sir, and that's what we are trying to settle with the plebescite in Puerto Rico.

Senator CHAFEE. Well, I'm not sure that I understand. I don't want to get in the middle of the plebescite problems——

[Laughter.]

Mr. LABORDE. I don't, either.

Senator CHAFEE. But it seems to me that we're talking Federal money. We're not talking Puerto Rican money. We're not talking private money, we're talking Federal money. So just as we say to Rhode Island, "You can spend your State money building a bridge out there, but we're not going to have any Federal money for that," why aren't we entitled to say the same to Puerto Rico? What's the difference?

Mr. LABORDE. Well, I think you're entitled. What I'm saying is that I think the most important point we are bringing to your consideration is that the segments you are considering in Puerto Rico are not being evaluated according to the criteria you have established. In other words, you are saying that certain things are barriers which are not barriers. They do not protect anything.

Senator CHAFEE. Well, that gets to the specific sites. I noticed in your testimony you referred to Sites 12, 14, and so forth.

Mr. LABORDE. Right.

Senator CHAFEE. And obviously we'll look at those on the charts that have been prepared. But I'm not sure I'm willing to accept your argument that because Puerto Rico has a unique status as a Commonwealth, we don't really have this power.

Mr. LABORDE. Well, I agree with you in the sense of not fostering development of hotels, etc. What we're saying, and this is the thing that concerns the Department, are basically the flood control projects that we have and other public infrastructure projects. See, with the addition of these segments, what you are going to end up doing is against the purpose of the Act, which is to protect life and

property. For example, in the case of Rio la Plata, we're talking about two towns with about 30,000 people that will be affected if our flood control project, which is funded by the Corps of Engineers, doesn't go through. I think you are really going against the purpose of this Act.

Senator CHAFEE. Well, we will certainly take a look at that. We appreciate it.

Thank you, Mr. Chairman.

Senator LIEBERMAN. Thank you.

Do you have other questions, Senator Chafee?

Senator CHAFEE. No, I don't. Thank you.

Senator LIEBERMAN. Mr. Koutnik, in response to Senator Chafee's question to Mr. Jannereth, which is the same line of questioning that I had in mind, I wonder whether your experience in Florida can give any counsel to us on the whole question of exempting highways. I think Senator Chafee put his finger right on it, that the whole purpose of this legislation is to regulate or control development. Highways lead to development. I know you've had some situations in the Keys, for instance, where you've dealt with this question, so why don't you enter into the dialogue?

Mr. KOUTNIK. I've dealt with it quite a bit. Within my Department are two divisions, and we constantly are on opposite sides of this issue. From our point of view, from the emergency management point of view, keeping U.S. 1 one-laned in certain critical lengths through the lower end of Dade and upper Monroe Counties is basically condemning people to death because they cannot get out of the Keys with any kind of sense of certainty.

Senator LIEBERMAN. They can't get out in an emergency situation, you mean?

Mr. KOUTNIK. They would have to leave 45 hours ahead of a hurricane. Well, as you know, 45 hours away, a hurricane will be around Puerto Rico. How many times when we have a hurricane are you going to cry "wolf" and expect the whole county to evacuate across a two-lane highway, with any one-car accident literally blocking the entire county's evacuation route?

But on the other hand the other side of the house says, "If you four-lane it, you incur development, therefore you make the problem even worse." So it is a very messy issue.

Obviously, from an emergency management point of view, we would not be in any opposition to allowing that type of critical route—that might be a term you could play with, "critical link" or "critical route"—to be exempted, allowing that to be increased, and definitely to allow it to be repaired and maintained.

Senator LIEBERMAN. But generally, and I don't want to put words in your mouth, you would be skeptical about exemptions for highways where there was not a safety reason for the exemption?

Mr. KOUTNIK. Yes. I really can't speak for the other side of my Department.

Senator LIEBERMAN. I understand.

Mr. KOUTNIK. I really can't do that.

Senator LIEBERMAN. Okay. Thank you, gentlemen. Thank you very much.

Panel three is composed of Sharon Newsome, who is the Vice President of the National Wildlife Federation, and Mr. Mike Barr, who is the Co-Chair of the Coastal Barrier Relief Fund of Florida.

We thank you all for coming and appreciate your presence. We have your testimony, and we would ask you now to summarize it in the time available.

Ms. Newsome, you are first. Thank you.

STATEMENT OF SHARON NEWSOME, VICE PRESIDENT FOR RESOURCES CONSERVATION, NATIONAL WILDLIFE FEDERATION

Ms. NEWSOME. Thank you very much for the opportunity to testify. My name is Sharon Newsome. I am Vice President for Resources Conservation at the National Wildlife Federation. I am testifying today not only on behalf of the Federation's 5.8 million members and supporters, but also on behalf of 25 other conservation organizations, including groups from Rhode Island, Florida, Texas, South Carolina, North Carolina, and Puerto Rico.

We commend you, Senator Chafee, for introducing this legislation to follow up on the commitment that you made in 1982 to coastal barriers. Likewise, we would like to thank Senator Lieberman for being a co-sponsor, and the other members of this committee who are co-sponsoring the legislation.

We believe that merging protection of the environment and public safety with reduction of the Federal deficit means that S. 2729 expands on the original laudable goals of the Act. In the testimony that I presented in September I discussed the important values and functions of coastal barriers, so I will not go through that again.

S. 2729 would expand the system to include 850,000 acres and 570 miles of shoreline along the Atlantic, Gulf, and Great Lakes Coasts. In addition, S. 2729 would extend designation to qualified Federally- and privately-protected coastal areas and automatically add eligible Federal property as it becomes surplus to the Government.

We strongly support S. 2729 and feel that with a few additions, the bill will greatly further the protection of the Nation's remaining undeveloped coastline.

One of our major priorities is to extend CBRS to America's other two coastlines, the Pacific and Great Lakes, and we appreciate the fact that you do go ahead and include the Great Lakes in this legislation. It both qualifies and needs this protection. These fresh water seas are plagued by extreme and unpredictable lake level fluctuations which have caused millions of dollars in damages, and they also function as barriers along the oceans. Unfortunately, they are increasingly being developed with resorts, marinas, and condominiums, and by removing Federal subsidies we hope that this kind of development will be discouraged.

In addition, the associated aquatic habitats are very important. More than 90 percent of the nonprotected areas are coastal wetlands and near-shore waters which are particularly unsuitable for development because of their wet condition, high flooding potential, and unparalleled ecological importance.

The 1982 Act included associated aquatic habitats in its definition. However, the maps that were used to delineate the bound-

aries were flood insurance maps, so many of the aquatic habitats were not included in the original Act. We believe that it is both appropriate and essential that S. 2729 include these areas.

We also strongly support the provision of S. 2729 which deletes the unconsolidated sediments requirement. In particular, the environmental community—including the Florida Keys Citizen Coalition—feels it is critical to add the eligible areas in the Keys. The Florida Keys include the United States' only living coral reef system, and more than 15 endangered and threatened species, many of which are found nowhere else in the world, such as the Key deer, Key tree cactus, and the Key Largo wood rat.

According to coral reef experts, the number one threat to the health of the Keys is pollution generated from onshore development, primarily sewage outfalls and septic tanks. This degradation is both an economic and environmental tragedy because it undermines the two largest industries in the Keys, tourism and commercial fishing, which rely on pristine natural resources.

Inclusion of the Keys shoreline within the system will help discourage the shoreline construction which is harming this unique environment. Almost 80 percent of the area proposed in the Keys is wetlands and aquatic habitat.

In addition, we are also very supportive of the Virgin Islands and Puerto Rico. Hurricane Hugo clearly showed the dangers of developing along these shorelines, yet they are undergoing increasing development. CBRS designation of the Virgin Islands and Puerto Rico is also more appropriate, as evidenced by the fact that their citizens do not pay U.S. Federal taxes, yet these countries receive all the Federal subsidies, such as flood insurance and disaster relief.

We are also very supportive of including otherwise protected areas. In my previous testimony I gave you numerous examples where protected status did not in fact protect these areas from development.

We also are very supportive of adding excess Federal lands. In particular, there is a case where the Resolution Trust Corporation has some land which the Alabama Insurance Underwriters Association has said they would not write insurance for because it is so very vulnerable to storms and hurricanes.

Finally, there are several areas for which we would ask that you add amendments, to include both the Pacific Coast and military lands, and adoption of the Department of the Interior's recommendation of 1987 to read section 5 of the Act to deny funding for projects which are directed toward purposes on system units.

Thank you very much for the opportunity to testify, Mr. Chairman.

Senator CHAFEE [assuming chair]. Mr. Barr.

STATEMENT OF MIKE BARR, COCHAIRPERSON, COASTAL BARRIER RELIEF FUND, TAVENIER, FL, ACCOMPANIED BY HON. LARRY PLUMMER, STATE SENATOR, STATE OF FLORIDA

Mr. BARR. Senator Chafee, Senator Graham, members of the committee, I represent the Coastal Barrier Relief Fund. Thank you

for allowing me to appear before you today to present my views on why the Keys should not be included in COBRA.

Also with me is State Senator Larry Plummer, who represents our district in Tallahassee.

The group I represent was formed in February 1989 to oppose the inclusion of the Keys in CBRS. In addition to our membership of 700 individuals, businesses, and organizations, many other organizations in our communities have voted to support our efforts. The Monroe County Commission has passed several resolutions and has contributed substantial financial resources to our effort. Rarely has our community responded with such solidarity to any issue.

Those of us who live in and love the Keys are aware that the Keys are a unique national treasure. We are well aware that our offshore waters and reefs are being destroyed. We are fighting and will continue to fight the destruction of our resources each and every day. We honestly believe we're making progress and that if allowed to continue, our problems can be solved.

One of the steps we have taken is developing a comprehensive county land use plan. Senator Graham, no one knows the agony that Monroe County went through from 1984 through 1986 in developing that plan. When the plan was completed, no one liked it. The environmentalists were opposed to it. Development interests were opposed to it. Government was opposed to it. No one liked it, and as someone said, it probably was pretty good, since no one agreed with it, or understood it.

After three years, we are finally beginning to function under this land use plan. It was a very complicated process that our recently rural community went through to rezone every piece of property, reduce densities, reduce intensity of development.

Now, the plan is starting to function. The introduction of the Coastal Barrier Resource System to virtually all the remaining undeveloped acreage within the Florida Keys would throw this delicate balance and the process that we're finally getting a handle on back up in the air again. The greatest development that ever occurred in the Florida Keys occurred as a result of this land use plan fight. The greatest issuance of building permits took place as we got closer and closer to implementation date. We went from issuing hundreds of permits a year to thousands, as property owners built to defend their right to build.

I welcome questions. We believe our community cannot continue to exist as a thriving community if the CBRS removes all of the vacant property.

Thank you.

Senator CHAFEE. Thank you very much.

First of all, I want to just mention, as regards Ms. Newsome, my thanks—and I think the thanks of all of us—to you for your work in 1982 when we did this. You were a real leader in the coalition that helped get this legislation passed. You helped us as we were preparing and you testified in support of it, and then marshaled support from all different groups, just as you have today. So I want to thank you publicly for your help then and look forward to your continued assistance.

Ms. NEWSOME. Thank you.

Senator CHAFEE. You mentioned including the otherwise-protected areas. Our feeling on that was that the legislation by itself is contentious enough without having all the local governments and the State governments concerned. Our belief was that the States provide protection through their parks, and the "otherwise-protected" would extend to those that are owned by institutions like the Nature Conservancy, the National Audubon Society, and so forth.

So we just thought there was one group that we didn't quite want to tackle right now.

Ms. NEWSOME. Right.

Senator CHAFEE. Now, as Alabama allows a convention center to be built in its public parks, the people of Alabama must be very, very tolerant of their public officials to permit that to occur. I don't think, when Senator Graham was the Governor of Florida, he would have dared undertake putting a convention center or a hotel in a public park. Certainly, when I was Governor of Rhode Island, I wouldn't have lasted very long if I had done that. But I don't know the circumstances that occurred in Alabama.

I think that overall the States and the groups that I've mentioned are protective of their areas and guard them with considerable care, and that extends to the communities that have public parks on the coast likewise.

Mr. Barr, are you familiar with the House bill that has already been reported out——

Mr. BARR. Yes, sir.

Senator CHAFEE [continuing]. That I believe Congressman Fascell worked on to some extent. Did you approve of what they did there?

Mr. BARR. Senator, we do not believe the CBRS is an appropriate vehicle for the Florida Keys. However, the compromise that was worked out in the House certainly would allow our communities the ability to survive and solve our problems. It was dealing with the offshore islands which, under the Monroe County Land Use Plan, are virtually unbuildable.

If I could give you an example of that, our County Commission recently went after the city of Key West, which claimed jurisdiction of an island called Tank Island. They had just permitted a hotel for 400-some units on Tank Island. Our county claimed jurisdiction, that it was not Key West city property. If that island was under the Monroe County Land Use Plan, two single-family homes could have been built on that same island that Key West permitted for 400-some units.

So this would not eliminate our community's ability to survive. It would allow us to continue building to FEMA standards. The hurricane evacuation problems exist in the Keys today. We have 80,000 people. You cannot evacuate them, starting 45 hours in advance of a hurricane. The problem exists. We need hurricane shelters that can withstand a force 5 storm. Seventy percent of the construction in unincorporated Monroe County, however, has been built to required FEMA standards, which were tested and which have much greater survivability.

Senator CHAFEE. I think the point here in this legislation—and I see my time is up, so I will come back later—the point is, it's not just that everything be built so that it can withstand hurricanes. It's not solely a safety piece of legislation; it is also an environmen-

tal piece of legislation. In other words, there are certain areas that we believe should not be developed because of environmental reasons. However, my time is up.

Senator Graham.

Senator GRAHAM. Thank you, Senator Chafee.

I would like to continue to pursue exactly the issue that your last statement covered, and that is, what is the purpose that we are trying to accomplish here? And within that purpose, evaluate the appropriate applicability to specific areas, such as the Florida Keys.

The title of the act, "Coastal Barrier," infers that this legislation was intended to relate to a certain type of coastal area; that is, those which serve as the barrier to an adjacent mainland. From your experience in the early 1980s, could you describe, Ms. Newsome, what was the original problem to which this Act was directed? And why was the specific type of initiative that was contained in the 1982 Act adopted as a means of moderating that problem?

Ms. NEWSOME. Well, Senator, there were really three purposes. One was protection of the environmentally-sensitive areas, fragile areas; public safety of these areas, which are generally the first hit by hurricanes and storms; and the third purpose and goal was to reduce Federal spending in these areas.

We believe that the Department of the Interior's expansion of the definition of coastal barrier to include "consolidated sediments" is very appropriate, particularly in the Florida Keys, because the Keys do function as barriers, bearing the brunt of hurricanes and storms and protecting the mainland from the brunt of those storms. In those areas it is better to have less development. It's best to have no development, but we don't hold out any hope that that's going to be the case. But for those areas that are currently undeveloped, we believe that the Federal Government should not be providing subsidies so that they do become undeveloped.

Senator GRAHAM. Let me understand. Do you see a linkage between the degree of protection which a coastal area is providing to the mainland as being a critical element, as to the appropriate inclusion within the Act?

Ms. NEWSOME. I would not characterize it as critical, but it is one of the factors that is important, along with the factors of their use for commercial and recreational fisheries, the functions of the wetlands—all are very important for national reasons, in our view.

Senator GRAHAM. Have there been any changes in circumstance since the early 1980s that you believe were not appropriately taken into account then that should be at the present time? That is to say, in your judgment has the focus of this national program changed over the last eight or nine years?

Ms. NEWSOME. In the sense that when the Act was originally proposed and passed, we were looking at a very specific kind of geological formation. It has been clear since 1982 that coastal areas for the entire United States suffer the same kinds of problems, have the same important natural resources, and therefore ought to be included in this kind of legislation. And the development that has occurred since 1982 in both Key West and the Great Lakes has been very intense and has meant that the areas that we saw as not

being particularly threatened or vulnerable in 1982 have become very threatened and vulnerable.

Senator GRAHAM. Mr. Barr or Senator Plummer, you talked about the issue of the comprehensive plan in the Keys. How would the rendering of ineligibility for various Federal subsidy programs, such as flood insurance, affect implementation of the comprehensive plan in the Keys?

Mr. BARR. Well, Senator, what immediately comes to mind is our solid waste problem. Our Comprehensive Land Use Plan requires that we have adequate services to service our community. Solid waste is a problem in our community, like everywhere else.

One of the things we're looking very closely at is a composting facility. I know that composting is not a new technology, but the facility proposed would take a 20-acre site and it would compost our entire waste stream. The salesman for this composting facility—which we think his presentation had a little bit of fluff in it—even suggested mining our existing landfills to create this organically-safe material with this composting facility.

There is an experimental plant that has been built in Dade County. We are looking at the results from it. If this went through, we have no leverage where we could arrange financing—or, hopefully, even get grants—to do this.

One of the problems that we have in the Keys is septic systems. We need to do some work on sewage treatment for communities where it could work, such as my neighborhood. Under this plan, we cannot get any assistance for grants or financing for that.

FEMA standards have saved lives in the Keys, FEMA standards that came with the flood insurance program. Our county was placed on probation a few years ago for granting variances to FEMA standards. We no longer do. The FEMA standards have built our homes above the one-in-100-year flood plain level, which will minimize damage. We think that's a good thing.

We're starting to get a handle on our problems. In the discussions for funding for roads, right now the State of Florida is looking at widening U.S. 1, from the mainland to Key Largo. I view it as a safety consideration. The vast majority of people in the Keys are very afraid it will promote more development. We are very concerned about overdevelopment in the Keys, everyone in the Keys is. But we can't wrestle with these problems with additional layers, such as the CBRS would create.

Senator GRAHAM. What would be your suggestion as to how this proposal could be integrated into the Keys' comprehensive plan, or do you consider it to be incompatible with the Keys' comprehensive plan?

Mr. BARR. I think Congressman Fascell, with the compromise he worked out, by choosing the offshore islands, which are virtually unbuildable, the two areas which are connected on the U.S. 1-connected islands are, under our land use plan, totally unbuildable. They serve no critical need to the balance within the land use plan. He felt that coincided with the land use plan. We were not involving land that was significant to the compromises that created the land use plan.

TDRs—transferrable development rights—this gave value to people who had extremely sensitive land that we didn't want devel-

oped. If you own native land, you received one TDR per five acres. You could transfer those to less sensitive property, such as urban commercial; to build a small apartment building, or something like that. So for example if a man wanted to build 10 apartments in an urban commercial scarified zone, you would save 50 acres of native property from ever being developed; there is no cost to the taxpayer; we have just simply stripped the development rights from the sensitive land.

If all this land is included in the CBRS, this whole system collapses. The incentives within our plan to develop the less sensitive land and leave the more sensitive land alone would all be thrown out.

Senator GRAHAM. Senator Plummer.

Senator PLUMMER. Well, the only thought that I can add to this is that we are coming into an era of actual impact fees. People are not losing their property rights. They may not be able to afford to build the actual infrastructure, i.e., roads, schools, sewers, parks, things of that nature, so what we are doing, we are preserving this by the dollar. People realize that it is extremely expensive to bring every consumer product, every drop of water 150 miles down one single road or down one single pipeline.

So I believe we have really turned the corner on this. The development of the Keys really has started to turn so that there is going to be a smaller percentage of the 900 people per day who come to Florida actually living in the Keys. Why? They probably can afford to live in other areas of Florida at a much lower cost, and I think that's going to be significant.

Senator GRAHAM. I see my time is up.

Senator CHAFEE. Thank you.

Mr. Barr, in reading your testimony it seems to me that you are suggesting that the Federal Government is taking this land from you. I know that you are aware of the fact that all we're saying in this legislation is that you can do what you want, but we're just not going to help you do it, "we" being the Federal taxpayers. If you want to have a compost for your solid waste on 20 acres of land, this legislation doesn't say you can't do it.

So I wasn't quite sure what you were suggesting there. It is true that we're not going to provide flood insurance for you, but that's because these are very, very exposed areas, and in addition are environmentally-sensitive areas, so the belief is that they are not the type that we should encourage development on, and so therefore we won't. If the State of Florida wants to pay for development or Dade County or whatever, that's their business, but the Federal Government won't help.

Now, why isn't that a properly acceptable position if you look at it from our point of view, representing the taxpayers of the Nation and those who are concerned about the environment of the country?

Mr. BARR. The reason I specifically mentioned the composting is because it is a significant environmental issue, the solution of the solid waste stream. And, sir, although it is not a taking—no one disagrees; I don't think that any one has challenged that the CBRS is any form of Federal taking—there is a significant impact on the residential community. Financial institutions look askew at lack of

Federal backing of projects. When we built our water pipeline, we went to Farmers Home Administration for our loan for the pipeline. These are major types of projects that local communities look to the Federal Government for assistance. The health and safety of 80,000 citizens should be considered.

The subsidy in flood insurance; we have to thank the American taxpayer for saving hundreds of lives and billions of dollars of real estate in the next storm that hits the Keys, because we've been required to build to standards that the storm surge that was mentioned here earlier will not destroy those buildings. These buildings are above the one-in-100-year theoretical highest level of the storm surge.

So you are correct, and we do thank the Government. However, there is a benefit to the Government. The newest construction is not subsidized, the flood insurance for these structures is actuarially sound. Since they are being built above the one-in-100-year flood plain, theoretically they will not be destroyed by flooding, which means no money will ever be paid out from the flood insurance. So this is a prepayment for people like myself, Senator. I own a ground level home in the Keys. It was built pre-FEMA. In a storm surge, my home would be damaged. The subsidy is to me. My home was built prior to these standards. It's not the new development that's being subsidized, at least not in the Florida Keys.

Senator CHAFEE. Well, as you know, the Federal Flood Insurance Program has been an economic disaster for the country. I think that those who serve the FEMA regulations are far fewer than those who don't. Now, that's in the administration of the program for some reason, and I don't consider myself an expert on that program. All I know is that what we pay out is far greater than what we take in in premiums. So it has been a real loser.

But as I mentioned before, this program isn't solely designed to save money. It's an environmental program, and that's why it's here before this committee. Our belief is that the criteria that have been developed, as Ms. Newsome pointed out, placed these different stretches of land, whether it's off the coast of Maine or the coast of Florida or the coast of South Carolina, these particular pieces of land are considered environmentally sensitive, the type that we as a Nation don't want paved or built on because of all the factors that go with it.

So we say, "Well, we haven't got the money to buy them, but at least we're not going to spend our money"—"our" being Federal money—"in developing them, or helping to develop them." That's what we say.

Now, maybe the argument is that these aren't environmentally-sensitive areas, that they don't fall in that category, and that is a perfectly legitimate argument and we should delve into the criteria to a greater extent than we have. But so far, I haven't found that you quarrel with the criteria.

Mr. BARR. Not in the least, Senator. But we believe that the residential communities of the Keys are the shock troops in the battle to protect the environment of the Keys.

Tourism has become our main economic base. Commercial fishing, as an economic base was back 10 or 20 years ago. We are trying to develop other economic bases. The Upper Keys, for exam-

ple, can exist as a bedroom community to the mainland. The residential community, for example, on the oil drilling rigs off the Keys came out en masse to demand that this not happen. The residential communities, the towns, the small towns, the people—they are out there cleaning up these beaches that tourists are trashing who do not really understand the nature of our Keys. The reefs—John Pennycamp State Park and the Federal Marine Preserve drew three million visitors plus last year. We want to know what's happening to the reefs. That's more divers than ever dove on them in the first thousands of years of their existence, dumped on them in one year.

There has to be some marshaling of resources, and we think that we can lead the way, and we may have on the reefs. While we've been working on various programs, a nonprofit organization in the Keys started putting mooring buoys out at the reefs. Now we don't have anchors going into the reefs, destroying the coral.

We think we can lead you to the environmental solutions if our communities can exist. If all we are is one giant tourist resort and some enclaves of the very wealthy, I question whether that is good for the environment of the Keys, Senator.

Senator CHAFEE. Let me ask you this here. Suppose this legislation that we passed in 1982 had included the Florida Keys. Do you think that those Florida Keys would be more protected now, more preserved than in the absence of this legislation?

Mr. BARR. Yes, sir.

Senator CHAFEE. You think they would have been more preserved?

Mr. BARR. Yes, sir.

Senator CHAFEE. Well, you're saying what I want to hear.

Mr. BARR. No, sir, I'm saying what I believe is the truth. A lot has happened since 1982. We have now taken steps—again, we don't have the run away growth now. In 1985 and 1986, we blew the lid off everything in the Keys, with people rushing to protect their property rights. Commercial property and square footage tripled in the Upper Keys. That will never happen again. One, our intensities of site development are lowered. System impact fees preclude it. But we need the ability to function as communities. Had this taken place in 1982, prior to implementation of our new Land Use Plan, prior to implementation of the State of Florida's Statewide comprehensive land use planning, it would have had a definite impact. Now I don't believe it would have the same type of impact.

Senator CHAFEE. Well, here's our problem. I certainly don't claim that all wisdom resides in the Federal Government by any stretch of the imagination, but it seems to me that when we're dealing with Federal dollars and Federal flood insurance, we have not only a right but a responsibility to use that in the most prudent and careful manner. I don't think we can see what each community might do if thoughtful citizens continue making the efforts that they're doing. If we're going to protect these areas, we will withdraw the use of our Federal funds; and if the communities then follow on with further efforts on their own behalf, three cheers.

But I don't quite see the arguments against restraint on the use of Federal funds in these areas that meet the criteria.

Senator PLUMMER. Miami Beach certainly meets the criteria. It has shifting sands. It was dredged up off the bottom. There are more people on that one island, which clearly protects an urban center, Miami, than in all of Monroe County, where that barrier island protects nothing but open water. The nearest population is over 50 miles away on Marco. So if we're taking Key Biscayne, Miami Beach, Sanibel, Longboat Key, there are millions of people living just inside those areas.

So it appears to me that we have two criteria here. One is that we are saving the Federal Government money, which, of course, it would. The other one, are we protecting property? If we want to, I think we should approach Miami Beach first because it is just one condominium after another, and right now they are building more condominiums as we speak. So if we are trying to save dollars, we should include Miami Beach, not the Keys. If we are trying to protect property inland from these barrier islands, once again, we should exclude Monroe County because all we have on the other side is open water with no one living even on the mainland, because, as you know, the mainland directly adjacent is America's second largest National Park with no one living there.

So I think what we are trying to do is grasp what we want to do. If we want to save money, we should include Miami Beach. If we're trying to protect population centers, perhaps the same.

So I think what we need to do is make it clear just what we want to do. Quite frankly, I think maybe the compromise that we're looking at might be the way to go in this instance, because I can tell that it is the product of a lot of work of a lot of people. As we've heard, no one is particularly happy with it, but both sides can certainly live with it.

Senator CHAFEE. The compromise of Mr. Fascell?

Senator PLUMMER. Yes, Senator.

Senator CHAFEE. Let me just refer back and ask you a question as to why we don't do Miami Beach. When we started this in 1982, we arrived at a situation where some of the horses were already out of the barn.

Senator PLUMMER. Yes.

Senator CHAFEE. In other words, we used as a criteria not only what areas met the environmental standards, but which areas were relatively undeveloped. We took a standard of not more than one house for every five acres. Beyond that, we said that that's gone, so Miami Beach was just considered gone. We couldn't do anything about that, that was done with. But the other areas, we moved as fast as we could. If we were doing this in 1882, we would have had far more areas to deal with; but when we did in 1982, some were so vastly developed that it just was not politically or otherwise feasible to say to Miami Beach, "You're not going to get any more Federal dollars."

Senator PLUMMER. Yet we're continuing to allow them to develop.

Senator CHAFEE. That's right, because that is considered lost. We have to be realistic here and recognize that certain areas are just gone. It may well be that Atlantic City would meet the criteria, but you look down, and Atlantic City is gone. The beach there is con-

sidered developed. You can't say to Atlantic City, "Well, you're not going to get any Federal funds for your sewage plant, no more Federal funds for your roads."

Senator PLUMMER. Perhaps my concern about protecting the environment, as delineating between the financial side, is that really we are protecting basically open water. Congressman Fascell has recognized the fact that that which we are protecting under that compromise should not have any construction on it now or forever, but as far as protecting people and protecting the environment, I think perhaps the compromise is what we're looking to do because the Florida Keys certainly realizes we have a hurricane problem. I've lived in south Florida for 50 years and I've experienced one major storm. We do have some warning. The State of Florida within the last month has indicated that they are going to four-lane that road out of Monroe County, as you heard our DCA acquiesce, and he thinks it's a pretty good idea. It increases the evacuation by 13 hours. That's significant. And I think as Mr. Barr has mentioned, we are not catching on slowly. We are making progress in Monroe County by leaps and bounds, and I think by this exemption that we are giving ourselves the right to control our own destiny, and it is working.

Senator CHAFEE. Well, my time is up. I do want to commend you for the plan you've got, and just say once again that this isn't solely a protective device for whoever might be downwind. It is also to protect the environmental areas, the sensitivity in your case to reefs and wetlands and marshlands and so forth.

Senator Graham.

Senator GRAHAM. Thank you, Senator.

You asked an interesting question, and that is, what would have been the effect on the Florida Keys if this Act had applied to the Keys from 1982 forward? I wonder if it would be possible to do that analysis and see what were the subsidies that the Florida Keys have received in the last eight years that they would not have been eligible to receive had they been covered by this Act? Could I ask if maybe the Monroe County Planning Department or some other agency could develop that information?

Mr. BARR. Yes, sir.

Senator PLUMMER. We relate to the number of hurricanes that we have or have not received. As you know, we have certainly been lucky, but the word is "luck." As we sit here, the chance of another hurricane coming looms on the horizon as the hurricane season begins. So we don't know whether we'll be lucky another year or not. We're just going to have to wait and see.

But it is a very interesting question for which I think we can certainly find the answer.

Senator GRAHAM. What is the practice in terms of financing development in the Keys, and the availability of flood insurance? Do most financial institutions require flood insurance as a condition of financing? And if flood insurance were not available, what consequence do you think that would have on the ability to secure mortgage financing for new development?

Mr. BARR. The banks, which are well represented in our organization—where flood insurance exists, good banking practice re-

quires that your properties are flood-insured. They do require flood insurance in any building in a flood plane area.

With the removal of flood insurance, even in the areas proposed here for inclusion, banks are looking at loans already within those areas, given some of the concerns banks are going through right now, and they had marked areas off for concern about making loans. If individuals are very strong and the bank can make portfolio loans, they would continue loaning without the flood insurance based on property values and the financial wherewithal of the borrower, but they couldn't sell a loan without flood insurance on the secondary market; they couldn't use VA loans; and they couldn't use FHA loans. So they would greatly curtail the primary residential loan.

The banks have great concerns about a drop in property values for these hundreds of homes that are within the proposed boundaries now. Someday these homes will be destroyed, so it's like a time bomb. They wouldn't be able to be rebuilt, so the property values drop.

We already disclosed that these properties are within the proposed boundaries. Buyers say, "Well, let's buy something not within the proposed boundaries." Prices drop. Banks have made percentage loans based on value, so they're already dealing with a little bit of a fall in the market price where they've made loans in these areas. For statewide banks like Barnett and Southeast, with broad-based risk, it is not quite as critical. For banks like TIB, a local bank, they are very involved in this issue and very concerned about this issue.

Senator GRAHAM. You mentioned the issue of emergency planning. Could you describe what is the current status of emergency planning in the Keys in terms of facilitating the evacuation of the population, or providing within the Keys secure structures that could withstand those hurricanes that we know are eventually going to come?

Senator PLUMMER. Last week we had the first public hearing on the four-laning of the road, the evacuation road. As of right now, the Jewfish Creek Bridge would not go up at all. Any boats to the west, they stay to the west. Their alternative would be to make a run for Marco Island. Any cars getting out would have to get out early. From there, the problem recurs that there is a large number of mobile homes. They would not be permitted on that road. As Mr. Barr has mentioned heretofore, these mobile homes probably have not had the wheels turned one revolution in the last several years. One of them breaking down on that two-lane road could literally trap 80,000 people.

The same would be true for a boat trailer. The plans now under Mr. Wagner, who is our director—he has mentioned that "If you are getting out, you will get out with a car, and you had better be out in a hurry, within the 45 hours." So no trailers, no boats, no raising of the bridge whatsoever.

As you know, the new road going down will have an intercoastal waterway height so that large boats, sailboats, could make it under the bridge, which I think is critical, without having to open it.

As you know, the other bridges—Snake Creek, which broke this week, once again—I think that what we're looking at is that the bridges don't go up. Only cars, no boats, no trailers.

Senator GRAHAM. And we have no Class 5 hurricane shelters within Monroe County?

Senator PLUMMER. And indeed, there is only one place in Monroe County over 17 feet, and that is Windley Key Quarry, which is quite small. So evacuation is imperative.

Senator GRAHAM. The State of Florida has had restrictions for most of the decade of the 1980s on the development of coastal barrier islands. What applicability has that had to the Keys?

Mr. BARR. To this point, none. The State of Florida has not declared any portion of the U.S. 1-connected Keys—and I don't believe any portion of the Keys—"barrier islands." The latest thing I heard on that was that they are waiting to see the outcome of this, and they will make their decisions on the State of Florida barrier island policy as it relates to the Keys, following the lead of the Federal Government.

Senator GRAHAM. Ms. Newsome, going back to some of the questions of Senator Chafee about the criteria, the purpose of this legislation is to identify specific geographic areas that would be, based on that geography, ineligible for a variety of Federal subsidy programs. Each of these subsidy programs, such as the highway program and flood insurance, have within them certain procedures that are supposed to identify inappropriate projects because of their environmental or safety purposes. Just because we have a flood insurance program doesn't mean that the Federal Government is going to insure every piece of property that submits itself. Just because we have a Federal-Aid Highway Program doesn't mean that the Federal Government is going to finance every highway that somebody proposes. NEPA and other environmental laws are designed to deal with this.

Therefore, what are the underlying rationales and the criteria to implement those rationales that premised the 1982 Coastal Barrier Act and the modifications that you are now suggesting in 1990?

Ms. NEWSOME. I'm not sure I understand your question, so if I don't answer it, try me again.

The problem with all of those laws, those agencies, is that they have not been as protective of natural resources as they needed to be. For example, the flood insurance program allows you to build over a dune, yet coastal geologists will tell you that that is absolutely the worst thing that you can do.

So this legislation is very much needed because these agencies and these laws are not doing an adequate job. These are not regulations, however. Again, they don't prevent someone from building the road or prevent a private insurance company from providing that flood insurance. It can still be done; it's just not being done with Federal financial resources.

Again, I'm sorry, I'm not sure I understood the question, so if I haven't answered it——

Senator GRAHAM. Well, maybe you've identified that we need to also be concerned about these individual acts, such as the basic flood insurance law. If that law does not take into account both appropriate economic circumstances—such as the actuarial risk of in-

suring a particular piece of property—or are not appropriately environmentally sensitive, we ought to be directing our attention to those, whether the flood insurance is applied in a coastal barrier circumstance or adjacent to an interior river system. And similarly with transportation, sewer grants, all the other forms of subsidy that are there.

With that network of front line protection for environment and safety, then I think we need to be very surgical in going the next step and saying that there are some geographic areas which, because of their unique circumstances, we're not going to ask for a project-by-project examination; we're going to say that anything that occurs within those areas is prohibited from even applying to be considered before a Federal subsidy project. I guess it's at that point that I'm trying to understand what are the criteria that you believe are such that require that absolutist position, as opposed to case-by-case examination.

Ms. NEWSOME. Well, I believe that this legislation, by including the Keys, is surgical because it includes only those undeveloped portions of the Keys. Our complaint with Representative Fascell's proposal is that it includes only those areas that are undevelopable. In other words, it's hard to imagine that Federal funds would ever be used in those areas because they are largely places that are under water or so inundated by water on a regular basis that it is pretty inconceivable that they would ever be developed.

The rationale here is that these areas are very valuable. They contain both fisheries and wildlife and wetlands that we ought not be encouraging development of. It does not affect, for example, the requirements of the Federal Flood Insurance Program on elevation of anything that is developed within the county. Those requirements will still be in place, but that homeowner will have to find insurance someplace besides the Federal Government.

Senator GRAHAM. My time is up. I'd like to ask——

Senator CHAFEE. Senator, I have no further questions. You are on your own. I have to leave in a couple of minutes. Why don't you continue?

Senator GRAHAM. Thank you, Senator. I also have another commitment.

I have one last question of Ms. Newsome, and that is that you indicated that the compromise that was reached in the House, you think, is deficient. What would be the areas that you would propose be added in the gap between the House compromise and this legislation? What would be your first priorities to augment the House bill?

Ms. NEWSOME. Well, I would be hard pressed to tell you if there is anything that the Interior Department has identified that ought not be included. I think that they used good criteria. The maps are good. All of their recommendations ought to be adopted.

Senator GRAHAM. Thank you, Senator.

Senator CHAFEE. I'd just emphasize what Ms. Newsome said, that the Department of Interior has spent some time over this. It wasn't just a broad-brush treatment. I don't want to solely restrict my comments to the Keys because I am not familiar with that in depth, but I am familiar in the approach that they took up in the areas that I know rather intimately in our area.

I think they did an excellent job. They went at it very carefully, and I can only assume that they were as careful, likewise, in the Keys.

. So I would hope we wouldn't start approaching it in that this is the floor, and how do we chop back from there in order to reach some kind of a compromise that will keep everybody happy?

I will refer again to Herman Hickman. When he was coach of Yale's football team he said that he tried to keep the alumni sullen but not rebellious. [Laughter.]

Senator CHAFEE. But that isn't the objective here. We want to get on with the program if we can.

If you have no further questions, then, we'll wind it up.

Thank you all very much for coming, and Mr. Barr, particularly we thank you and Senator Plummer for coming up from Florida.

[Whereupon, at 11:56 a.m., the subcommittee was adjourned, to reconvene at the call of the Chair.]

[Statements submitted for the record and the bill S. 2729 follow:]

STATEMENT OF JOHN TURNER, DIRECTOR, U.S. FISH AND WILDLIFE SERVICE, U.S. DEPARTMENT OF THE INTERIOR, BEFORE THE SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION, COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS, UNITED STATES SENATE, REGARDING S. 2729, THE COASTAL BARRIER RESOURCES ACT AMENDMENTS OF 1990

July 11, 1990

Mr. Chairman, I am pleased to testify on behalf of the Department of the Interior regarding S. 2729, the Coastal Barrier Resources Act Amendments of 1990. Three of our bureaus -- the U.S. Fish and Wildlife Service, the National Park Service, and the U.S. Geological Survey -- have been involved in conserving undeveloped coastal barriers. All three Bureaus helped prepare the 1989 Report to Congress on the Coastal Barrier Resources System. The Fish and Wildlife Service is responsible for implementing the the Coastal Barrier Resources Act (CBRA).

Last September, Director Turner of the Fish and Wildlife Service testified before this subcommittee and expressed Administration support for the recommendations contained in the 1989 report. Those recommendations serve as the basis for S. 2729. Recently, the Department transmitted a letter to the House Committee on Merchant Marine and Fisheries indicating the Department's general support for the House bill, H.R. 2840.

The Administration supports S. 2729. Most the land proposed for inclusion in the System is wetlands. We believe enactment of S. 2729 would contribute significantly to the President's goal of no-net-loss of wetlands.

NATURE OF COASTAL BARRIERS

Coastal barrier habitats and their associated wetlands support a tremendous variety of organisms. Millions of fish, shellfish, birds, mammals, and other wildlife depend on coastal barriers and their wetlands for vital feeding, spawning, nesting, nursery, and resting habitat. Often, the highest diversity of wildlife on coastal barriers is found between marshland and upland, or between land and water.

Without coastal barriers, large population centers on the mainland would face the direct assault of the sea. The barriers buffer wetlands and the mainland from daily waves and tides as well as hurricanes and northeasters. House and other structures built too near the shoreline are often threatened by beach erosion.

BACKGROUND

In passing CBRA, Congress stipulated three objectives: 1) reducing loss of human life; 2) decreasing wasteful expenditure of Federal revenues; and 3) minimizing damage to fish, wildlife, and other natural resources associated with coastal barriers along the Atlantic and Gulf coasts. These objectives have been promoted by limiting new Federal expenditures and assistance for development activities affecting designated undeveloped coastal barrier units.

The CBRA established the Coastal Barrier Resources System. The limitations on Federal assistance apply to coastal barriers within this System. Currently, the System contains 186 undeveloped coastal barrier units. These units comprise 452,834 acres and

666.6 miles of shoreline along the Atlantic Ocean and Gulf of Mexico coastlines.

The Department has played a major role in the implementation of CBRA. The Department participated in study efforts leading to the enactment of CBRA and also prepared the final report and recommendations required by section 10 of CBRA together with a supplemental Legislative Environmental Impact Statement. These were transmitted to Congress in January of 1989. The Department also prepared maps of undeveloped coastal barriers along the Great Lakes and forwarded the maps to this Committee in June 1989.

This year, personnel from the Fish and Wildlife Service and the National Park Service were involved in reviewing maps the Department sent to the Congress. They also participated in site visits to determine if areas have been developed.

S. 2729

S. 2729, the Coastal Barrier Resources Act Amendments of 1990, includes the following provisions.

- The reference to "unconsolidated sedimentary materials" would be deleted in order to cover undeveloped coastal barriers characterized by other geologic features such as carbonate-cemented deposits, as well as silt and clay.
- The definition of "otherwise-protected" coastal barriers would be deleted so that such areas could be included in the System.
- The System would be expanded to include new acreage on the Gulf, Atlantic and Great Lakes coastlines as depicted on maps forwarded to the Congress in 1989. Approximately 790,000 acres would be added on the Gulf and Atlantic coastlines, and 57,000 acres would be added along the Great Lakes shoreline.

The majority of this acreage is wetlands or the aquatic habitat associated with each unit.

- The System would be expanded to include otherwise- protected areas owned by the Federal Government or non-profit organizations and that are depicted on maps completed by the Department of the Interior.

- Procedures would be established to provide for automatic inclusion of undeveloped coastal barriers which are determined to be "excess" by the General Services Administration.

- Procedures would also be established to authorize the Governors of coastal States to recommend the inclusion of undeveloped coastal barriers owned by the State or other subdivisions of government.

- The disposal of dredged material within units in the System would be required to be consistent with the purposes of CBRA.

- Procedures for ensuring compliance with the limitations on Federal funding would be assigned to the head of each Federal agency, rather than to the Office of Management and Budget.

- Appropriations would be authorized at $1 million for Fiscal Years 1991 and 1992.

- The Secretary of the Interior would be authorized to make minor and technical modifications to maps depicting units in the System and to provide for distribution and availability of the maps.

Many of the provisions contained in S. 2729 relate to recommendations in our 1989 report. We are pleased to reiterate the Administration's support for them today. We do not believe, however, that an amendment to CBRA to require that dredged material disposal be consistent with the Act is necessary since environmental factors and other factors are already considered in the current regulatory process. Nor do we believe that Federal agencies should be required to self-certify compliance with CBRA, as addressed later in this statement.

We recognize that the major objective of the bill is to increase the amount of land included in the System, and we support the

inclusion of lands referenced in the proposed new section 4 of CBRA. All additional categories of land encompass privately owned and undeveloped areas. Areas to be added to the System include:

- areas meeting the Department's criteria for undeveloped unprotected coastal barriers;
- aquatic habitat associated with the existing and proposed new units identified for inclusion in the System;
- secondary barriers located in bays or between the mainland and another barrier;
- undeveloped, unprotected coastal barriers along the Great Lakes, the Florida Keys, Puerto Rico, and the Virgin Islands; and
- certain inholdings or private property which exist within otherwise-protected units.

S. 2729 also provides for inclusion of publicly owned lands and lands owned by a private organization primarily for wildlife refuge, sanctuary, recreational or natural resource conservation purposes. Approximately 34 percent of the undeveloped coastal barrier lands along the Atlantic and Gulf coasts fall into this category, commonly known as "otherwise-protected" lands, including the Department's national wildlife refuges, national seashores, and national recreation areas. Concern has been expressed that Federal monies should not be used for inappropriate development, such as commercial and residential development, in such areas.

Provisions in the bill vary with respect to the procedures for inclusion of these lands. Federally owned lands, such as parks and refuges that are depicted on the Department's maps, would be included automatically in the system upon enactment of the bill. Privately owned lands managed for conservation purposes, such as Nature Conservancy lands, would also be automatically included. A

different procedure under section 3 of the bill would apply to lands owned by States and local subdivisions of government. With respect to these lands, Governors of coastal States would have the option of deciding whether to include undeveloped coastal barriers within their respective States.

The Department of the Interior has no objection to these provisions. The Department's report recommended that guidelines be developed for acceptable development in otherwise-protected areas. In addition, when unacceptable development occurs, we recommended that such lands automatically be included in the System. We have been particularly concerned that no new Federal expenditures and financial assistance be made available for residential or commercial development within "otherwise-protected" areas.

We also note that current provisions in CBRA allow for exceptions to the statute's general funding limitations. Section 6(a)(6)(A) specifically exempts "projects for the study, management, protection and enhancement of fish and wildlife resources and habitats, including, but not limited to, acquisition of fish and wildlife habitats and related lands, stabilization projects for fish and wildlife habitats, and recreational projects."

To obtain this exemption, consultation with the Fish and Wildlife Service is required and the project must be consistent with the purposes of CBRA. We believe this exemption allows necessary development on undeveloped coastal barriers for fish and wildlife conservation and recreational purposes.

The Department also supports many of the other provisions in the bill, including procedures for the inclusion of undeveloped coastal barriers declared to be "excess" and deletion of the term "unconsolidated sedimentary materials" from the definition of an undeveloped coastal barrier.

The Department previously recommended that the reference to unconsolidated sediment be deleted from the definition of an undeveloped barrier to allow for the inclusion of lands affected by wind, wave, and tidal action and function as coastal barriers in protecting fish and wildlife resources. Such areas would include carbonate-cemented deposits (such as the Florida Keys), silt and clay areas (such as fringing mangroves and cheniers) and discontinuous outcrops of bedrock or coarse glacial deposits (such as areas found off the New England coast).

Similarly, the Department had recommended that CBRA be amended to require that surplus or excess Federal coastal barrier property be automatically included in the System prior to disposal unless it would otherwise qualify for an exemption under the Act.

Many of the remaining provisions in the bill are conforming amendments directing the Secretary of the Interior to make necessary technical modifications to maps of the System and to arrange for distribution and public availability of the maps. We have no objection to these provisions. They are similar to those currently found in section 4 of CBRA.

Finally, S. 2729 would amend CBRA to provide that each Federal agency would self-certify its compliance with CBRA. Current procedures require the Office of Management and Budget to provide the necessary certification to Congress annually.

The amendment proposed in S. 2729 is better than the current System because the certification process is cumbersome and OMB lacks the capability required to audit agency expenditures. It is our view, however, that compliance with CBRA would best be achieved by periodic oversight hearings when appropriate. Accordingly, we recommend that section 7 of CBRA be deleted.

ADDITIONAL RECOMMENDATIONS

S. 2729 does not include several recommendations in the Department's 1989 report. We would be happy to work with the Subcommittee to draft suitable language incorporating the following recommendations:

- exclusion of Federal navigation channels from the System or exemption of improvements to Federal navigation channels;
- exemption of Highway 1 in the Florida Keys because it is the only access to the islands;
- authorization for a Federal interagency study (including the Departments of the Interior, Transportation, Commerce, Army, and Agriculture, FEMA, EPA, and coastal States) to develop additional options for addressing Federal subsidies on all coastal barriers, including developed barriers.

ESTIMATED SAVINGS

Enactment of CBRA represented a major thrust in promoting conservation without additional regulation. By limiting new

Federal expenditures and assistance that promotes development activities within undeveloped coastal barriers, the CBRA transfers financial risks associated with development from taxpayers to those who choose to live on or invest in hazardous or erosion-prone areas.

We believe this approach has been successful. A review of the 186 units included in the System in 1982 indicates only 10 units have undergone significant development since 1982. It is probably that much of this development occurred after passage of the statute in October 1982 and before imposition of a prohibition on Federal flood insurance which became effective in October of 1983. We believe inclusion of additional acreage in the System will slow development and conserve undeveloped coastal barriers.

In December of 1988, the Department released its final Legislative Environmental Impact Statement, which is specific to the Atlantic and Gulf coastlines. It indicates that adoption of the Department's recommendations would reduce development of the coastal barriers proposed for inclusion in the System. This conclusion is based on several factors, including the unwillingness of private lending institutions to make loans for development of coastal barriers when Federal flood insurance is unavailable. Any decline in the rate of development would be expected to further maintainence of the natural geological and ecological characteristics of coastal barriers.

The effects of reduced or delayed development on natural processesis likely to be greatest in Florida and the Carribean,

where large additions are proposed and the largest acreages of potentially developable fastland are available. In the Northeast and mid-Atlantic States, proposed additions are mostly secondary barriers, which are less suitable for development. Although Louisiana has the largest acreage proposed for addition of any coastal State, most of this acreage is associated aquatic habitat that is generally unsuitable for development.

The principal economic impact of curtailing Federal flood insurance and other Federal development assistance would be expected to be borne by owners and developers of coastal barrier property. Economic impacts would range from declines in market value to unavailability of bank financing. It is generally recognized that it is difficult to correlate effects on market values with inclusion in the System. According to the LEIS, no data exists indicating whether development pressures have increased, thereby increasing property values, on coastal barriers that are not included in the System.

The potential savings to the Federal Government from adding new acreage along the Atlantic and Gulf coastlines is estimated to be $997 million over a 20-year period. This figure is based on analyses conducted by H. Crane Miller in 1981 concluding that the costs of extending then-current Federal assistance programs to undeveloped barriers was approximately $25,570 per developed acre, in 1980 dollars. Included in these estimates were monies for the construction of roads, bridges, airports, and water and sewer systems, as well as Federal flood insurance and disaster relief. The total estimated cost has been calculated by multiplying the

per acre costs by 39,000 acres (the amount of fastlands contained in the 1989 proposal).

Replacement costs for post-disaster redevelopment of coastal barriers have been estimated at $53,250 per developed acre. Based on the 39,000 acres of fastland recommended, these figures would translate to a total replacement cost of $2.08 billion for the proposed additions. This is the amount that could be saved, in addition to development assistance savings, by foregoing possible post-disaster redevelopment assistance in these areas.

The Department's 1989 report does not contain any estimates of the savings to date to the U.S. Treasury based on the 186 units included in the System in 1982. An estimate of these savings can be made, however, by applying the analysis utilized by H. Crane Miller in 1981. Using this approach, savings over a six-and-a-half year period since the statute was passed have been estimated at $830 million, based on the 100,934 acres of fastlands included in 1982.

Mr. Chairman, thank you again for the opportunity to be here today to testify on this important legislation. We believe the concept contained in CBRA -- negative economic incentives -- has been a major factor in conserving undeveloped coastal barriers. Staff from several bureaus in the Department of the Interior will continue to be available to provide technical assistance to the Subcommittee during your deliberations, and I will be pleased to respond to any questions you may have.

Testimony of
Martin R. Jannereth
for the
Michigan Department of Natural Resources
on
Amendments to the Coastal Barrier Resources Act
before the
Subcommittee on Environmental Protection
of the
Committee on Environment and Public Works
United States Senate
July 11, 1990

Mr. Chairman and members of the Subcommittee, I am Martin Jannereth, Supervisor of the Great Lakes Shorelands Management Unit for the Michigan Department of Natural Resources. I appreciate the opportunity to testify today on Senate Bill S. 2729, to amend the Coastal Barrier Resources Act.

Of the approximately 112 Coastal Barriers units proposed by the Department of the Interior in the Great Lakes, 75 units or 67 percent are in Michigan. Consequently, Michigan has the largest stake of any Great Lakes state in the proposal to incorporate these areas into the Coastal Barrier Resources System.

Michigan has over 3,200 miles of Great Lakes shoreline. Approximately 350 miles of Michigan's coast is classified as an erosion hazard area and another 300 miles of the shoreline is classified as having significant fish and wildlife habitat, ie., primarily coastal wetlands and rookery areas. These areas are

identified as high risk erosion areas and environmental areas on Exhibit 1. These hazard prone and sensitive areas are currently regulated under State law. We consider the proposed inclusion of 75 sites into the national Coastal Barrier Resources System to be supportive of Michigan's efforts to protect these areas and discourage unwise development.

We believe the 1982 Coastal Barriers Resources Act was an historic and innovative step toward placing the financial burden of storm losses and natural resources depletion away from the federal government and on the shoulders of property owners who buy or build in hazardous and sensitive areas. Expansion of this program to the Great Lakes makes sense in terms of broadening the scope of the Act into a truly national program. I hope the Coastal Barrier Resources Act and its amendments will become a model for removing federal expenditures which promote development in any area which possesses a large risk of loss of life, waste of federal revenues and damage to fish, wildlife and other natural resources. This approach could be applied to floodways and V-zones under the National Flood Insurance Program, highly productive wetlands, areas of high risk from mudslide, shoreline erosion, and other areas hazardous to development.

Michigan has been afforded ample opportunity to review the proposed coastal barrier sites. Starting in 1984, I have worked with the Department of the Interior to review and comment on the proposed

coastal barriers in Michigan. Michigan proposed many changes including the addition of six units to the proposed list. More recently, Dr. Al Greene, Great Lakes Coastal Barriers Coordinator with the National Park Service is to be commended for his cooperative efforts. The working relationship he has maintained with Michigan has been deeply appreciated. As a result, we have no concerns with the boundaries of the proposed sites in Michigan. We have also reviewed some of the proposed coastal barriers with Dr. Greene to determine whether the sites met the definition of an undeveloped barrier. This review led to the removal of at least two units by the Department of the Interior and modification of others which did not meet the criteria for an undeveloped area.

Michigan is satisfied with the proposal in S. 2729 which gives the Governor of each State the ability to recommend or "opt in" otherwise protected areas for inclusion into the Coastal Barrier System.

Michigan has, however, a serious concern with the impact of the Coastal Barrier Resources Act Amendments of 1990 on our transportation network. The Great Lakes Coastal Barrier Act of 1988, P.L. 100-707 contained an amendment which exempted highways located within the State of Michigan from the Coastal Barrier Resources System. But because the Great Lakes proposed Coastal Barriers were not a part of the Coastal Barrier System upon passage of P. L. 100-707, the exception of Michigan highways was never

codified. We believe the expansion of existing Michigan highways should be exempt from the Coastal Barrier Resources Act for two reasons:

1. Access. The present highway system in Michigan already passes through several of the proposed coastal barriers. Consequently, access to these areas is already sufficient to support development by non-federal interests. I would emphasize that the coastal barriers in Michigan are not barrier islands where a bridge or causeway is required; they are part of the mainland. Since widening the highway for safety reasons would not increase access, we believe the intent of the Coastal Barrier Resources Act and its amendments would be met by exempting Michigan highways.

2. Critical habitat. Denial of funds to expand Michigan highways passing through coastal barriers would force the selection of alternate routings which would be eligible for federal funding. Road relocation would threaten interior wetlands and not reduce access to the coastal barrier by the present road system. U. S. Route 2 in the Upper Peninsula of Michigan is an example where a potentially serious mistake could be made by relocating a road from a coastal barrier into high quality wetlands inland of the coastal barrier. For these reasons we ask the subcommittee to retain the exemption for the expansion of Michigan highways within the proposed coastal barrier system. If this exemption is retained from the 1988 legislation, we support inclusion of all areas in Michigan which meet the definition of an undeveloped coastal barrier.

Mr. Chairman, this concludes my statement concerning our position on S. 2729, the Coastal Barrier Resources Act Amendments of 1990. I commend you and this Subcommittee for your leadership in pursuing a reduction of inappropriate federal expenditures on undeveloped coastal barriers. Thank you for the opportunity to testify. I would be pleased to respond to any questions that you or members of the subcommittee may have.

HAZARD PRONE AREAS REGULATED
UNDER MICHIGAN'S COASTAL
MANAGEMENT PROGRAM
FLOOD RISK AREAS
HIGH RISK EROSION AREAS
DNR
GIS
GREAT LAKES INFORMATION SYSTEM
DEPARTMENT OF NATURAL RESOURCES
LAND AND WATER MANAGEMENT DIVISION
DATE: 7-13-89

EXHIBIT 1

TESTIMONY OF

FRANK J. KOUTNIK

Community Program Administrator
Florida Department of Community Affairs
Division of Emergency Management

BEFORE THE:

SENATE COMMITTEE ON ENVIRONMENTAL AND PUBLIC WORKS

SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION

JULY 11, 1990

FLORIDA'S HISTORIC AND PRESENT VULNERABILITY TO MAJOR STORMS

According to the National Hurricane Center, Florida has the dubious distinction of being the most vulnerable of all states in the nation to the receipt of hurricanes. Figure One demonstrates that based solely on historical evidence, Florida can expect to receive the impacts of 1.3 hurricanes annually. This fact causes state and local emergency management officials great concern because over eighty percent of all Floridians currently live within one of the thirty-five coastal counties. Compounding this is the fact that of the 900 new residents arriving in this state everyday, eighty percent of them will also choose to live near the coast, the overwhelming majority of which will have never experienced the direct impact of a hurricane. Figure Two shows how many residents actually live in an area that has been predicted to be inundated by various categories of a hurricane storm surge. A Hurricane Hugo type storm (Category Four) occurring in Florida has the potential of directly impacting thirty-one percent of the state population (3,940,000), which is more than the entire population of the State of South Carolina.

For the past two decades, Florida has been spared receiving a direct, landfalling, major hurricane (Categories 3-4-5). According to Dr. William Gray of the Department of Atmospheric Science, Colorado State University, this is going to change rapidly. At the 1990 National Hurricane Conference in Houston, Texas, he said *"Florida is a sitting duck in the Sahel shooting gallery"*, meaning that because of the increase meteorological activity in the African Sahel region (where the majority of major hurricanes form) this year, we can expect to see *"a return to an increased incidence of intense hurricanes landfalling on the United States coast...(with) substantially greater hurricane spawned property damage than has ever before been experienced."*

Last year, this nation saw the meteorological event of the century with the landfalling strike of Hurricane Hugo on the coast of South Carolina. If Hurricane Hugo had hit this state, the damages would have far exceeded those of South Carolina. Although hurricane force winds extended 110 miles to the north, and twenty miles to the south, the only major urban area Hurricane Hugo impacted was Charleston. Overlaid on Florida, Hugo would have caused dramatic losses. Figure Three shows a 130 mile area the size of Hugo over South Florida. Such an area would include over seventy-eight major urban areas, with a combined population of 4,900,000 residents, many of whom would be eligible for federal disaster assistance, as would all of the damaged public infrastructure that is there to support this population.

Summarized below is the amount of loss that could be expected to occur in selected Florida counties, based on several "Regional Hurricane Loss Studies," funded by the Federal Coastal Zone Management Program, U.S. Army Corps of Engineers, the Federal Emergency Management Agency, and the State of Florida.

Estimated Damages from Hurricanes in Florida
($ millions)

County	Category of Hurricane				
County	Cat 1	Cat 2	Cat 3	Cat 4	Cat 5
Escambia	20.8	64.9	102.0	168.6	349.0
Santa Rosa	1.8	3.3	4.8	6.7	28.9
Okaloosa	12.9	20.7	28.9	44.9	73.9
Walton	2.9	5.1	7.4	10.6	23.3
Bay	3.2	5.3	7.7	9.7	27.4
Collier	169.0	525.7	1093.3	1418.0	1528.0
Lee	155.5	532.0	1119.0	1416.5	1549.0
Charlotte	83.4	336.0	657.5	813.0	871.6
Sarasota	232.0	709.0	1414.0	1889.0	2358.5
Dade	445.3	693.0	2207.6	5181.5	8939.4
Broward	200.8	362.2	1603.6	4204.7	7885.2
Monroe	329.0	622.5	2247.0	4928.0	9404.9

These estimates are reason for great alarm. Although the majority of these losses would be covered under a federal disaster declaration, local and state jurisdictions must cost-share the total loss figure by twenty-five percent. In Florida, local governments must cost-share 12.5 percent, and the state will equally match it. A hurricane the size and intensity of Hugo could have cost this state an estimated ten billion dollars, meaning local and state governments would have had to find 2.5 billion dollars in match. This has obvious implications for state and local officials who would be faced with this dilemma. Historically, barrier islands in the path of a hurricane will incur a higher proportion of area losses.

PROBLEMS ASSOCIATED WITH EVACUATION OF BARRIER ISLANDS

The primary problem associated with evacuation of residents from barrier islands is the amount of time it takes resident to evacuate prior to the arrival of tropical force winds. Figure Four shows every coastal county in Florida and their associated clearance time. The clearance time is the amount of time it will take residents to simply leave a site under normal conditions. Emergency management planners must add to this time a "prelandfall hazard time", or the amount of lead time needed to get all residents out of vulnerable site prior to the arrival of the tropical storm winds. Added together, (clearance time + prelandfall hazard time) they become the total evacuation time, or the amount of time before the arrival of a hurricane that an evacuation order must be given. No county in the State of

Florida has a total evacuation time of less than the twelve hours, which is the lead warning time the National Hurricane Center can issue with any kind of accuracy. Extreme cases, such as the Florida Keys, can have total evacuation times in excess of forty-five hours.

Compounding the fact that many of Florida's barrier islands are heavily inhabited are the very limited egress routes off the islands. The entire population of Sanibel Island and Captiva Island (Lee County) are totally dependant on one egress route that often floods. In 1988, Tropical Storm Keith only passed within ninety miles of Lee County but caused the Sanibel Island Causeway to be closed by the local authorities because of the rapidly rising water on the causeway. Should TS Keith had escalated into a hurricane, those residents still on the island would have been trapped with no possible way of leaving the island. Such was the case on Sullivan's Island, South Carolina. Once the Ben Sawyer Bridge was damaged, no additional island residents could leave their community for the safety of the mainland. The greatest fear Florida emergency managers have is a recurrence of the 1935 hurricane which went from a minor category one hurricane to a major category five hurricane in less than forty-eight hours as it swept across the Florida Keys killing over 400 people. Once trapped on a barrier island, there are no public shelters available, and those residents remaining on them will be forced to weather the storm as best they can. This will be critical, as nature will treat barrier islands as "bathymetry" (ocean bottom) instead of "topography" once they are completely inundated with the sea.

This is the scenario for most of Florida's coastal barrier islands. This is what happened in South Carolina on Sullivan's Island. The entire island was submerged as deep as seven feet at given points which explains why the destruction was massive. Florida could expect to receive the same types of damages on all of our low-lying barrier islands.

CONCLUSION AND RECOMMENDATIONS

From an emergency management perspective, barrier islands pose the greatest threat to loss of live and property. They require a great deal of advanced emergency planning and resource allocation during actual events. After the storm, one could expect to receive the greatest extent of damages on the barrier islands to homes and businesses, costing millions of dollars to repair or replace to pre-disaster conditions.

Attached to this testimony is the August 6, 1987 letter to Secretary Hodel from Governor Martinez, which addresses Florida's position on the Coastal Barrier Resource Act.

STATE OF FLORIDA

OFFICE OF THE GOVERNOR
BOB MARTINEZ

August 6, 1987

RECEIVED
AUG 7 1987
BUREAU OF STATE
RESOURCE PLANNING

The Honorable Donald Hodel
Secretary of the Interior
U. S. Department of the Interior
Washington, D.C. 20240

Dear Mr. Hodel:

I am happy to respond to your request for a review of the U.S. Department of the Interior's (DOI) proposed recommendations to Congress on revisions to the coastal barrier resource system (CBRS) established by the Coastal Barrier Resources Act (CBRA). The CBRS inventory and executive summary have been reviewed by local, regional, and state officials and by many of Florida's citizens. To facilitate our review I requested the Department of Community Affairs (DCA), in cooperation with your department, to hold five public workshops throughout Florida. We appreciate Ms. Barbara Wyman, Mr. Frank McGilvrey, and Dr. Juergen Rheinhardt of DOI attending our workshops.

The State of Florida supports the concept of CBRA. We have reviewed the DOI recommended revisions to the CBRS and, with some exceptions, find them to be consistent with the intent of CBRA and Florida laws and policies which we must implement. Florida's State Comprehensive Plan (Chapter 187, Florida Statutes) contains policies that seek to minimize the loss of human life, protect natural resources, and reduce wasteful public expenditures. The State has also adopted a policy of avoiding the expenditure of state funds in high hazard coastal areas, including CBRS areas, and the building of bridges to currently unbridged islands (Section 380.27, Florida Statutes, and Executive Order 81-105). My comments on the proposed additions to the CBRS are based upon information obtained during the review period and a review of state agency comments, which are being sent to you under separate cover.

DOI proposes to include in the CBRS aquatic habitat associated with currently designated CBRS areas. Generally I support this recommendation since Florida has traditionally recognized the value of these natural resources and has established by statute a number of programs designed to protect them, including the aquatic preserve program, administered by the Department of Natural Resources. The DOI proposal also includes aquatic habitats near or in developed areas. I recommend that existing roads, bridges, and causeways

through CBRS units and connecting developed areas that are currently not in the CBRS be excluded from the system so that we do not inadvertently limit our ability to provide transportation services to people living in non-CBRS areas now or in the future. Florida made a similar recommendation to your department in its 1985 comments on your proposal.

The development of regional impact (DRI) process involves comprehensive planning and thorough state and regional review of developments which, due to their character, magnitude, or location, would have a substantial effect on the citizens of more than one county. The State encourages developers of large projects to utilize the DRI process since it is designed to ensure both that adequate public facilities are available at the time development occurs and that protection of sensitive environmental resources is provided. Projects which go through the DRI process typically result in developments which exhibit superior planning and accommodation of environmental values. In preparing master plans for these areas, developers are required to consider as part of their design the impact of coastal storms and floods and to mitigate their effects. I recommend that areas subject to an approved DRI development order be excluded from CBRA. DOI should exclude areas which, although presently undeveloped, are as of January 1, 1987 part of a phased, comprehensive master DRI order, are included in a pre-development agreement as a condition precedent to DRI review, or are included in a pending Application for Development Approval for a DRI. DCA would be glad to assist in the documentation of such projects. This recommendation is consistent with the State's intent as expressed to DOI by letter in 1985.

The western boundary of the proposed CBRS Unit FL-98 in Santa Rosa Island includes a developed area and a 60 acre parcel in the Range Point area that, according to the Santa Rosa Island Authority, has sewer and water infrastructure available as a result of the recent sale of revenue bonds. The authority asserts that a portion of the debt was to be paid from fees charged to developers of a planned destination resort in the area. I recommend that this area, not including approximately 4,000 feet of beach frontage, be excluded from the proposed CBRS unit.

DOI's proposed additions to CBRS Unit P10, North Hutchinson Island, were excluded by Congress in 1982 and remain developed areas. The only area in the proposed additions that should be added to CBRS Unit P10 includes the wetlands south of County Road 510. All other areas in the proposed additions meet DOI criteria for exclusion, including the availability of infrastructure, urban development densities, agricultural improvements, or the existence of other development such as roads, stormwater systems, and water supply.

The Florida Keys have been designated by the state legislature an area of critical state concern (ACSC) since 1979. A principal objective of the designation is to protect the Keys' unique and fragile natural resources. Current land use maps have recently been prepared and adopted in connection with Monroe County's comprehensive plan. I recommend that before CBRS designations are made on the bridged keys, DOI work with DCA and the Florida DOT and examine these current land use maps in order to determine which areas may be proposed for inclusion. U.S. Highway 1 in the Keys is an important transportation corridor to both national and state interests, it should be excluded from the proposed additions to the system. I concur with the DOI proposal to designate unbridged keys and associated aquatic habitats as part of the CBRS.

DOI's proposed additions to CBRS Unit P25, Cedar Key, include areas currently in residential, commercial, or institutional land uses which contain a full complement of public infrastructure. I suggest that these developed areas, both within and outside of the municipal boundary of the City of Cedar Key, be excluded from the proposed additions to the existing CBRS unit.

DOI's proposed addition to the CBRS, FL-63, Big Marco Pass, includes areas containing substantial development. The area includes four high rise structures, numerous residential and commercial buildings, and a full complement of public infrastructure. It appears from recent aerial photographs that these areas were mistakenly included in the proposed CBRS unit. I recommend that the developed areas be excluded from the proposed FL-63.

The DOI draft report to Congress recommends the repeal of Section 6(a)(3) of CBRA. This section addresses the use of federal funds for the repair, reconstruction, replacement, or maintenance of essential links in the highway network inside CBRS units. I recommend that this section of the Act not be repealed. Your recommendation that the above type of projects be subject to Section 6(a)(6)(F) would require additional project review and consultation. The language of this proposed change could potentially eliminate federal funding of routine maintenance, repair, or reconstruction of some existing roads. This would create problems for residents in existing developments.

The draft report also recommends that Section 6(a)(2) of CBRA be amended by adding the following language: "Maintenance of existing channel improvements and related structures, such as jetties, and including the disposal of dredged material related to such improvements, will be performed in a manner consistent with the purposes of CBRA." This proposed new language needs to be clarified to allow for the deposition of sand dredged from inlets and channels on state beaches when agreed to by the State and the Corps of Engineers. The amended section should not preclude nonstructural beach nourishment projects.

DOI proposes to eliminate the requirement in CBRA that federal agencies certify to the Office of Management and Budget (OMB) that they have complied with CBRA in their funding decisions. We believe that some means of oversight of federal agency actions relative to the program is necessary to insure compliance. OMB seems to be an appropriate oversight agency if the reduction of governmental costs and waste is an objective.

I stress that the State of Florida is committed to the preservation of coastal barriers, estuaries, and wetlands. We have demonstrated this commitment through extensive programs for land acquisition and regulation of development in these areas and by aggressive land acquisitions in the coastal zone. The Coastal Barrier Resources Act provides us with another opportunity to work with federal agencies to minimize the loss of human life, protect vital natural resources, and reduce the wasteful expenditures for public infrastructure development. I encourage you to strengthen and expand the coastal barrier resources system consistent with these comments so that these resources are not lost.

I sincerely hope that the revisions to the CBRS, which began in 1985, can be quickly and finally resolved so that the citizens of Florida can prepare and implement plans based upon some degree of certainty.

Thank you for the opportunity to review the draft executive summary and coastal barrier resources system inventory. My staff will be happy to work with you in clarifying my comments on DOI's proposed CBRA revisions.

Sincerely,

Governor

BM/wkm
Enclosures

cc: Florida Congressional Delegation
Florida Cabinet Members
Tom Pelham
Tom Gardner
Dale Twachtmann
Colonel Robert Brantly
Kaye Henderson
Jeb Bush
Gregory Coler
George Percy

TOTAL P.11

TESTIMONY OF JOSE E. LABORDE

SECRETARY OF THE DEPARTMENT OF NATURAL RESOURCES

OF THE COMMONWEALTH OF PUERTO RICO

BEFORE THE SENATE ENVIRONMENTAL PROTECTION SUBCOMMITTEE

ON WEDNESDAY, JULY 11, 1990

HEARING ON S. 2729

"COASTAL BARRIER RESOURCES ACT AMENDMENTS OF 1990"

GOOD MORNING. MY NAME IS JOSE LABORDE. I AM THE SECRETARY OF NATURAL RESOURCES OF THE COMMONWEALTH OF PUERTO RICO. AMONG THE MANY DUTIES OF MY DEPARTMENT, ONE OF THE MOST IMPORTANT IS THE PROTECTION AND CONSERVATION OF OUR COASTAL RESOURCES. WE CONDUCT RESEARCH IN MARINE AND COASTAL BIOLOGY AND CARRY OUT DIVERSE ACTIVITIES RELATED TO MITIGATION OF COASTAL HAZARDS. IN COOPERATION WITH THE PLANNING BOARD, THE DEPARTMENT ALSO ADMINISTERS THE COASTAL ZONE MANAGEMENT PROGRAM OF PUERTO RICO.

DEPARTMENT SCIENTISTS COOPERATED DURING THE EARLY 1980'S WITH THE COASTAL BARRIERS STUDY GROUP OF THE DEPARTMENT OF THE INTERIOR TO DELINEATE THE ORIGINAL COASTAL SEGMENTS PROPOSED FOR INCLUSION IN AN EXPANDED COASTAL BARRIER RESOURCES SYSTEM NOW UNDER CONSIDERATION BY THIS SUBCOMMITTEE. HOWEVER, AS NOW DELINEATED, MOST OF THE PUERTO RICAN PROPOSED "BARRIER" SEGMENTS SHOULD NOT BE INCLUDED IN THE SYSTEM. WHEN THE PROPOSED AMENDMENTS WERE ORIGINALLY INTRODUCED IN THE HOUSE SUBCOMMITTEE ON FISHERIES AND WILDLIFE CONSERVATION AND THE ENVIRONMENT, THE COMMONWEALTH VOICED GREAT OPPOSITION TO THE INCLUSION OF PUERTO RICO UNDER THE ACT. OUR REASONS FOR OPPOSING THE INCLUSION OF PUERTO RICO IN THIS LEGISLATION ARE SEVERAL, BUT I PARTICULARLY WANT TO EMPHASIZE THREE OF THEM:

FIRST, THE UNIQUE POLITICAL ASSOCIATION BETWEEN THE GOVERNMENT OF THE UNITED STATES AND THE COMMONWEALTH OF PUERTO RICO HAS TO BE CONSIDERED. IT WAS THE PRINCIPLE OF MUTUAL CONSENT THAT LAID THE FOUNDATION FOR THE POLITICAL RELATIONSHIP KNOWN AS THE COMMONWEALTH STATUS. THE AUTONOMY GRANTED TO PUERTO

RICO HEREIN ALLOWED THE COMMONWEALTH'S GOVERNMENT TO DEVELOP A COMPREHENSIVE AND CENTRALIZED SYSTEM OF LAND USE WHICH NOW REGULATES DEVELOPMENT AND PROTECTS OUR COASTAL AREAS.

SECOND, THE DIFFERENCES THAT EXIST BETWEEN THE COMMONWEALTH'S LEGAL SYSTEM, INHERITED FROM THE SPANISH CODIFIED LAW, AND THE LEGAL SYSTEM OF THE COASTAL STATES, LEAVE MANY OF THE PROPOSED AREAS ALREADY WELL PROTECTED UNDER OUR UNIQUE PLANNING AND REGULATORY FRAMEWORK. I WILL ELABORATE ON THIS POINT THROUGHOUT MY TESTIMONY.

THIRD, GEOLOGICAL AND GEOMORPHIC DIFFERENCES BETWEEN THE COASTS OF THE ISLAND AND THE BROAD SHALLOW SANDY COASTS OF THE ATLANTIC AND GULF STATES MAKE SOME OF THE PROPOSED SEGMENTS LESS SUSCEPTIBLE TO WIPE OUT AND LESS AVAILABLE FOR DEVELOPMENT. SINCE THE DEPARTMENT HAS CONSIDERABLE EXPERTISE ON THE SUBJECT, I WILL FOCUS MY TESTIMONY ON THIS ASPECT.

THE COASTAL BARRIER RESOURCES ACT AMENDMENTS, AS PROPOSED, GREATLY INCREASE THE TYPES OF COASTAL FORMATIONS ELIGIBLE FOR PROTECTION AS BARRIERS. THE ORIGINAL LEGISLATION WAS DESIGNED TO PROTECT <u>UNCONSOLIDATED</u> LINEAR DEPOSITS OF SAND AND GRAVEL, SIMILAR IN FORM AND FUNCTION TO THE WELL KNOWN COASTAL BARRIER ISLANDS AND SPITS OF THE EAST AND GULF COASTS OF THE U.S.

AT THE OUTSET OF THIS TESTIMONY, WE NEED TO CLARIFY FOR THE RECORD THAT THERE ARE NO OFFSHORE SANDY BARRIER ISLANDS IN PUERTO RICO. THE TOTAL VOLUME OF SAND IN DYNAMIC EQUILIBRIUM WITH THE OFFSHORE PLATFORM IS FAR LESS ON OUR ISLAND THAN ANYWHERE ON THE ATLANTIC OR GULF COASTS OF THE UNITED STATES. THERE SIMPLY IS

NOT ENOUGH SAND IN THE SYSTEM TO BUILD OFFSHORE BARRIER ISLANDS, BECAUSE THE SLOPE OF THE SEA BOTTOM IS TOO STEEP, AND SAND IS CONSTANTLY LOST TO THE GREAT ABYSSAL DEPTHS. OUR SMALL ISLAND'S RIVERS LIKEWISE CONTRIBUTE LESS SAND TO RENEW THE OFFSHORE SUPPLY.

THE NET EFFECT IS THAT OUR BEACHES ARE RELATIVELY NARROW, AND WITH THE EXCEPTION OF HIGH ENERGY NORTH COAST BEACHES, THEY ADJOIN THE MAINLAND DIRECTLY, OFTEN WITH NO WETLANDS BEHIND THEM.

PUERTO RICO IS ONLY ABOUT 110 MILES LONG BY 35 MILES WIDE IN ITS WIDEST AND LONGEST DIMENSIONS. OUR RIVERS ARE PROPORTIONATELY SHORT AND SMALL, AND ALTHOUGH THEY CARRY A HEAVY SEDIMENT LOAD DURING THE RAINY SEASON, MANY OF THEIR MOUTHS BECOME TEMPORARILY BLOCKED IN DRY PERIODS. ALMOST ALL OF OUR RIVERS HAVE SAND SPITS AT THEIR MOUTHS, BUT THESE SPITS ARE SHORT, NARROW AND VERY EPHEMERAL IN SIZE AND SHAPE. MANY OF THESE RIVER MOUTH BARS AND SPITS HAVE BEEN DELINEATED AS "COASTAL BARRIER" SEGMENTS BY THE STUDY GROUP OF THE DEPARTMENT OF THE INTERIOR, EVEN THOUGH NORMAL SEASONAL HIGH FLOWS RESHAPE THEM EVERY YEAR AND THEY ARE PUBLIC DOMAIN LANDS AND THUS NOT AVAILABLE FOR PRIVATE DEVELOPMENT, ACCORDING TO OUR LAWS.

THE LACK OF LARGE OFFSHORE SAND RESERVOIRS AFFECTS THE APPEARANCE OF PUERTO RICO'S COASTS. THERE ARE A FEW BARRIER SPITS, MOSTLY FORMED OF SAND ACCUMULATIONS BEHIND ROCKY ISLANDS THAT WERE ORIGINALLY OFFSHORE. THE PROPOSED BARRIER SEGMENTS PR-07 AND PR-66 ARE EXAMPLES OF THIS TYPE OF FORMATION. MOST OF THE OTHER PROPOSED SEGMENTS NOW UNDER CONSIDERATION ARE SEGMENTS OF

THE COAST OF THE MAIN ISLAND. AS SUCH THEY DO NOT PRESENT THE SAME DEGREE OF EXPOSURE AS AN OFFSHORE BARRIER ISLAND. IN CONTRAST TO THE WIDE COASTAL PLAINS OF THE EASTERN AND SOUTHERN UNITED STATES, PUERTO RICO'S COASTS RISE MORE QUICKLY TO THE MOUNTAINOUS INTERIOR. IN FACT, IN MANY PLACES, STEEP ROCKY SPURS EXTEND RIGHT TO THE COAST, BREAKING UP FLAT BEACH AREAS. THIS MEANS THAT EVACUATION FROM COASTAL AREAS, EVEN THE MOST REMOTE, IS A QUESTION OF MINUTES OR AT MOST AN HOUR AS OPPOSED TO SEVERAL HOURS FOR EXPOSED UNITED STATES COASTAL AREAS.

THIS IS WHY WE BELIEVE THAT THE PROPOSED SEGMENTS, IN THE MAIN, ARE NOT COMPARABLE TO MAINLAND SEGMENTS, IN THEIR DEGREE OF ISOLATION, DIFFICULTY OF EVACUATION, GEOLOGIC INSTABILITY OR DEGREE OF EXPOSURE TO REWORKING BY TIDE, WIND AND WAVES.

IF A SEGMENT OF THE PUERTO RICAN MAINLAND, SAY A SANDY COASTAL AREA BETWEEN TWO ISLAND MUNICIPALITIES, OR WORSE, A RIVER MOUTH SPIT, IS DELINEATED AS A COASTAL BARRIER AND INCORPORATED INTO THE SYSTEM, THE COMMONWEALTH WILL ALSO BECOME INELIGIBLE TO UTILIZE FEDERAL FUNDS TO PLAN FOR OR BUILD PUBLIC WORKS THAT NEED TRAVERSE THAT SEGMENT AND THAT MAY BE VITAL FOR THE WELL-BEING OF THOUSANDS OF PUERTO RICANS.

THE REASON FOR THE PROHIBITION ON FEDERAL INVESTMENT IN COASTAL BARRIER SEGMENTS IS CLEARLY EXPLAINED IN THE COASTAL BARRIER RESOURCES ACT. THE ORIGINAL LAW WAS PASSED TO AVOID WASTEFUL AND REPEATED FEDERAL EXPENDITURES ON STRUCTURES AND FACILITIES DOOMED TO EVENTUAL DESTRUCTION BY THE FORCES OF NATURE, TO DISCOURAGE SETTLING ON UNDEVELOPED COASTAL BARRIERS TO

AVOID THE LOSS OF HUMAN LIFE, AND TO PROTECT THE NATURAL ECOSYSTEMS OF THE BARRIERS AND THEIR ASSOCIATED WETLANDS. HOWEVER, WE ASSERT THAT, IF ALL OF THE PROPOSED COASTAL "BARRIER" SEGMENTS IN PUERTO RICO ARE INCORPORATED INTO THE SYSTEM, IT WILL NEGATIVELY AFFECT GOVERNMENT FACILITIES BUILT OR PLANNED IN SUCH LOCATIONS WHICH ARE NECESSARY TO PROVIDE OR UPGRADE SERVICES TO UPLAND OR INLAND AREAS THAT ARE ALREADY DEVELOPED. PROHIBITIONS WOULD AFFECT SANITARY SEWER OR TREATMENT PLANT UPGRADES IN PROPOSED SEGMENTS 5, 6, 7, 43 AND 87. THESE UPGRADES ARE FOR REGIONAL SYSTEMS SERVING MAJOR METROPOLITAN AREAS AND HAVE NOTHING TO DO WITH FOSTERING DEVELOPMENT OF UNDEVELOPED COASTS. "PROTECTION" OF ALREADY LEGALLY PROTECTED RIVER MOUTH BARS IN SEGMENTS 41, 46, 51, 52, 54, 72, 81, 84, 00 AND 87 IS UNNECESSARY AND WILL HINDER OUR FLOOD MITIGATION, AT THE PLANNING AS WELL AS IN THE CONSTRUCTION STAGE. ALL OF THE RIVER MOUTH BARS DIRECTLY IN FRONT OF THE MAIN RIVER CHANNEL ARE PUBLIC DOMAIN LANDS. THEY DO NOT NEED THE ADDITIONAL "PROTECTION" OF INCLUSION INTO THE SYSTEM. FURTHERMORE, THIS PROTECTION WILL NOT PREVENT THE REGULAR REWORKING BY RIVER FLOODS BUT IT CAN AND MAY PREVENT THE COMMONWEALTH FROM UTILIZING MUCH APPRECIATED FEDERAL ASSISTANCE ESPECIALLY FROM THE U.S. ARMY CORPS OF ENGINEERS, TO PLAN OR CARRY OUT NECESSARY MAINTENANCE DREDGING.

THE CRITERIA UTILIZED BY THE COASTAL BARRIERS STUDY GROUP TO SELECT SITES FOR NOMINATION TO THE COASTAL BARRIER RESOURCES SYSTEM CONSIDERS ALL AREAS "UNDEVELOPED" UNTIL A MINIMUM NUMBER OF STRUCTURES ALREADY EXIST ON THEM. THESE CRITERIA WERE

DEVELOPED FOR SELECTING THE COASTAL BARRIERS IN ATLANTIC AND GULF COASTAL STATES. THE COASTAL BARRIER CRITERIA DEVELOPED BY THE STUDY GROUP OF THE U.S. DEPARTMENT OF THE INTERIOR, NOT ORIGINALLY DESIGNED FOR A TROPICAL ISLAND, ARE INFLEXIBLE IN THEIR APPLICATION TO THE UNIQUE LEGAL AND REGULATORY FRAMEWORK OF THE COMMONWEALTH. IN PUERTO RICO, ONCE A PROJECT HAS BEEN APPROVED FOR A GIVEN LAND SITE, IT IS POSSIBLE FOR A DEVELOPER TO OBTAIN LATER APPROVALS FOR BUILDING PLANS, CONSTRUCTION, AND HOOK UPS TO ELECTRICITY, WATER AND OTHER PUBLIC UTILITIES. WITHOUT THIS INITIAL SITE LOCATION APPROVAL, HOWEVER, NO DEVELOPMENT CAN PROCEED. PLANNING REGULATION NUMBER 17 (THE ZONING REGULATION FOR THE COASTAL ZONE AND ACCESS TO THE BEACHES OF PUERTO RICO) IS A UNIFORM AND FAR-REACHING REGULATION APPLICABLE TO ALL COASTAL MUNICIPALITIES OF THE COMMONWEALTH. THIS REGULATION RECOGNIZES CERTAIN AREAS AS NATURAL RESERVES, WITHIN WHICH SUBDIVISIONS ARE PROHIBITED. OTHER REGULATIONS PROVIDE FOR PROTECTION OF COASTAL HIGH HAZARD AND FLOOD ZONES.

THE COMMONWEALTH HAS COMMENTED REPEATEDLY THAT CERTAIN AREAS, CONSIDERED "UNDEVELOPED" OR "UNPROTECTED" BY THE STUDY GROUP, ARE IN FACT ADEQUATELY PROTECTED OR, IN A FEW INSTANCES, ALREADY DEVELOPED SINCE THE CENTRAL GOVERNMENT HAS EVALUATED AND APPROVED PRELIMINARY PROJECT PLANS. IN OTHER CASES, BECAUSE COUNTRY HOMES IN PUERTO RICO ARE SMALLER IN FLOOR AREA THAN THE MINIMUM SIZE ACCEPTABLE FOR AN INSURABLE STRUCTURE, CERTAIN SEGMENTS CONTAINING EXISTING COMMUNITIES HAVE BEEN MAPPED AS "UNDEVELOPED".

WE WISH AGAIN TO STATE TO THIS SUBCOMMITTEE THAT AREAS INSIDE A DESIGNATED NATURAL RESERVE ARE PROTECTED. SUCH A DESIGNATION, MADE UNDER PLANNING REGULATION NO. 17, IS LEGALLY VALID AND EFFECTIVE. THESE COMMENTS APPLY IN PARTICULAR TO PARTS OF PROPOSED SEGMENTS 2,7, ALL OF SEGMENT 8, PARTS OF 44 AND 45, 60, 83, 84 AND MOST OF 87. BY THE SAME TOKEN, SEGMENTS THAT CONTAIN AN APPROVED DEVELOPMENT WHERE THE PLANNING BOARD, THE DEPARTMENT AND OTHER COMMONWEALTH AGENCIES HAVE ENDORSED THE PROJECT, AFTER DUE EVALUATION OF COASTAL RISKS, MITIGATING FACTORS AND SUCH CRITERIA AS NATURAL ECOSYSTEMS, SETBACKS, TYPE OF CONSTRUCTION AND OTHER ITEMS, SHOULD NOT BE MAPPED AS UNDEVELOPED. THIS IS THE CASE IN SEGMENT 6.

I BELIEVE THAT SOME ADDITIONAL SEGMENTS AS DELINEATED ARE TOO ROCKY, TOO ELEVATED OR NOT LONG ENOUGH TO QUALIFY. I HAVE BROUGHT AERIAL PHOTOGRAPHS TO DEMONSTRATE SOME OF THESE PROBLEM AREAS. HOWEVER, I WOULD LIKE TO TAKE THIS OPPORTUNITY TO INVITE ANY OR ALL OF YOU TO VISIT THE ISLAND AND SEE FOR YOURSELVES HOW DIFFERENT OUR PROPOSED SEGMENTS ARE FROM THE LONG, LOW SAND ISLANDS THIS LAW WAS ORIGINALLY DESIGNED TO PROTECT. WE WOULD BE HAPPY TO TAKE YOU TO THESE AREAS AND SHOW YOU WHY MANGROVE KEYS, CORAL REEFS AND BEACH ROCK COASTS DO NOT BEHAVE LIKE UNCONSOLIDATED SANDY BARRIERS.

BEFORE I FINISH, I WOULD LIKE TO BRING TO THE ATTENTION OF THE HONORABLE SUBCOMMITTEE THE FACT THAT PUERTO RICO IS IN A VERY SPECIAL SITUATION. BEING A COUNTRY WITH A LIMITED TERRITORIAL EXTENT AND A HIGH POPULATION DENSITY, IT HAS EXPERIENCED AN

ECONOMIC GROWTH COMPARABLE TO THAT OF OTHER COUNTRIES WITH GREATER RESOURCES. HOWEVER, CONTRARY TO OTHER NATIONS WITHIN THE REGION, IT HAS MANAGED TO CONSERVE ITS RESOURCES AND WE HEREBY REAFFIRM OUR COMMITMENT TO CONTINUE TO DO SO.

I WOULD LIKE TO CLOSE BY REAFFIRMING MY GOVERNMENT'S COMMITMENT TO ENHANCE BIODIVERSITY, CARRY OUT HAZARD MITIGATION PROJECTS AND PROTECT HUMAN LIFE ON PUERTO RICO'S COASTS. PUERTO RICO IS NOT A STATE. IN ITS UNIQUE RELATIONSHIP WITH THE UNITED STATES, IT NEEDS GREATER AUTONOMY IN ISLANDWIDE LAND USE DECISION MAKING, ESPECIALLY SINCE IT HAS IN PLACE A BETTER MECHANISM FOR CENTRAL CONTROL AND REGULATION OF LAND USE THAN MOST STATES. ALTHOUGH PASSAGE OF THIS MEASURE AND INCLUSION OF THE 42 PROPOSED SEGMENTS IN A "FEDERAL PROTECTIVE ZONE" DOES NOT DIRECTLY IMPEDE PRIVATE DEVELOPMENT WITHIN THEM, IN FACT IT CAN BE A SERIOUS HINDRANCE TO THE GOVERNMENT'S ORDERLY PLANNED EXPANSION OF BASIC PUBLIC INFRASTRUCTURE TO LARGE SEGMENTS OF OUR POPULATION.

I TRUST YOU WILL TAKE THESE MATTERS INTO CONSIDERATION WHEN DECIDING THE FATE OF THE PUERTO RICO COASTAL BARRIER SEGMENTS. THANK YOU FOR ALLOWING US THE OPPORTUNITY TO PRESENT OUR POSITION.

Working for the Nature of Tomorrow®
NATIONAL WILDLIFE FEDERATION
1400 Sixteenth Street, N.W., Washington, D.C. 20036-2266 (202) 797-6800

Statement
of
Sharon Newsome
Vice President, Resources Conservation Department
National Wildlife Federation

regarding
The Coastal Barrier Resources Act Amendments of 1990, S. 2729
Before
the Subcommittee on Environmental Protection
of the
Senate Environment and Public Works Committee
July 11, 1990

Presented on Behalf of the Following Organizations:

American Littoral Society
American Oceans Campaign
Audubon Society of Rhode Island
Center for Marine Conservation
Coast Alliance
Committee to Preserve Assateague Island
Environment Council of Rhode Island
Florida Keys Citizens Coalition
Florida Wildlife Federation
Friends of the Earth
Frontera Audubon Society, Texas
Great Lakes United
Oregon Natural Resources Council
Michigan United Conservation Clubs, Inc.
Mision Industrial de Puerto Rico
National Audubon Society
National Parks and Conservation Association
National Wildlife Federation
Natural Resources Defense Council
North Carolina Coastal Federation
Save The Bay
Sierra Club
South Bay Task Force, Texas
South Carolina Wildlife Federation
Texas Environmental Coalition

S. 2729, THE COASTAL BARRIER RESOURCES ACT AMENDMENTS OF 1990

Chairman Baucus, Senator Chafee, and members of the Environmental Protection Subcommittee, thank you for the opportunity to testify on S. 2729, the Coastal Barrier Resources Act Amendments of 1990. My name is Sharon Newsome, and I am Vice-President of Resources Conservation for the National Wildlife Federation. The Federation is the nation's largest non-profit conservation organization, with more than 5.8 million members and supporters, and affiliates in 52 states and territories. I am also testifying on behalf of the American Littoral Society, American Oceans Campaign, Audubon Society of Rhode Island, Center for Marine Conservation, Coast Alliance, Committee to Preserve Assateague Island, Environment Council of Rhode Island, Florida Keys Citizens Coalition, Florida Wildlife Federation, Friends of the Earth, Frontera Audubon Society (Texas), Great Lakes United, Oregon Natural Resources Council, Michigan United Conservation Clubs, Inc., Mision Industrial de Puerto Rico, National Audubon Society, National Parks and Conservation Association, Natural Resources Defense Council, North Carolina Coastal Federation, Save The Bay, Sierra Club, South Bay Task Force (Texas), South Carolina Wildlife Federation, and Texas Environmental Coalition. These organizations all have a long history of working to protect the coastal resources of this country and many have been actively promoting expansion of the Coastal Barrier Resources System (CBRS or System) since shortly after its creation in 1982.

We commend you, Senator Chafee, for your wisdom and leadership in drafting S. 2729, the offspring of the Coastal Barrier Resources Act of 1982 (CBRA) which you championed. Likewise, we commend you, Chairman Baucus, and Senators Mitchell, Lieberman, Durenberger, and Humphrey, for joining Senator Chafee in sponsoring this bill. By merging protection of the environment and public safety with reduction of the federal deficit, S. 2729 expands upon the laudable goals of the original CBRA and its tradition of bipartisan cooperation. We urge your colleagues in the Senate, and in particular on this subcommittee, to join you in cosponsoring this important legislation.

It is a pleasure for me to testify before the Environmental Protection subcommittee again on this issue. In the testimony that I presented last September, I discussed the important values and functions of coastal barriers, and the major environmental,

economic, and public safety costs of developing these fragile, unstable landforms. I also gave the environmental community's views on the Department of the Interior's final recommendations to Congress on the CBRS. In order not to duplicate those remarks, I will cover these points only briefly today before focusing my comments on S. 2729.

Background: The Folly of Developing Coastal Barriers

Coastal barriers -- the barrier islands, dunes, wetlands, and spits lining the nation's shoreline -- are the front line of defense for mainland communities against erosion, flooding, sea level rise, hurricanes, and other severe storms. They also support an abundance of fish and wildlife -- including millions of waterfowl, numerous endangered and threatened species, and the majority of the nation's commercially-important fisheries. Development of coastal barriers, however, impairs their natural beneficial functions and destroys the wildlife resources which depend on them. Shoreline construction also generates pollution which contaminates productive nearshore waters.

This same development also jeopardizes human life and property. Last September, Hurricane Hugo reminded us of the tragic consequences of building too close to the water -- 54 people were killed and more than $7 billion lost in damages. Nonetheless, people continue to flock to America's shorelines to live. About 110 million people currently live in coastal counties; according to an April 1990 study by the National Oceanic and Atmospheric Administration, this number is expected to grow 60 percent by the year 2010.

Despite the significant environmental, public safety and economic costs of coastal construction, the federal government facilitates development and redevelopment along the nation's coasts through subsidies for infrastructure, federal flood insurance under the National Flood Insurance Program, and post-disaster redevelopment assistance. A 1981 study by H. Crane Miller found that federal development subsidies on coastal barriers averaged more than $50,000 per developed acre.

The 1982 Coastal Barrier Resources Act

In 1982, Congress addressed the folly of providing federal subsidies for development

on environmentally-sensitive, hazard-prone coastal barriers by passing the Coastal Barrier Resources Act. The Act created a 186-unit, 450,000-acre Coastal Barrier Resources System along the Atlantic and Gulf Coasts. Within the CBRS, federal subsidies for new development -- including flood insurance policies, non-emergency disaster assistance, and funding for roads, bridges, sewers, and housing -- are prohibited. In order to qualify for inclusion within the CBRS, an area has to be undeveloped -- having less than one structure per five acres of land above mean high tide.

The CBRS does not take away a property owner's right to develop his or her property with state, local, or private funding, but merely ensures that the federal taxpayer no longer has to shoulder the burden of risky coastal development. And by removing the federal financial incentives for this construction, the CBRS discourages people from building in hazardous coastal areas -- thereby protecting lives and property, the Federal Treasury, and fragile coastal ecosystems.

Time is Ripe For Expansion of the Coastal Barrier Resources System

Inclusion of 450,000 acres within the 1982 CBRS was the first step towards protection of the nation's undeveloped coastline. Recognizing that additional areas qualified for the System's protection, Congress directed the Interior Department in Section 10 of CBRA to map the additional shoreline areas qualifying for inclusion within the CBRS, and to recommend ways to improve the effectiveness of the program.

In its Final Report to Congress (December, 1988), the Interior Department recommended the inclusion of 790,000 additional acres of undeveloped, unprotected coastal barriers along the Atlantic and Gulf shorelines to the CBRS. In June, 1989, the Department also identified approximately 58,000 acres and 150 miles of shore along the Great Lakes shoreline that qualified for inclusion within the CBRS. These recommendations were the catalyst and foundation for the House and Senate bills to expand the CBRS, H.R. 2840 and S. 2729, respectively.

The National Association of Realtors maintains that there has been inadequate public input into proposals to expand the CBRS and that CBRS legislation is being rushed through Congress. Quite the contrary. Beginning with a Federal Register notice in 1983

outlining Interior's proposed study, spanning the release of two draft reports (1985 and 1987) and a draft Environmental Impact Statement (1988), and ending in the release of Interior's Final Report to Congress in 1988, there have been numerous opportunities for the public to participate in the Interior Department's development of recommended changes to the CBRS. During this five-year period, the Interior Department solicited nearly 8500 public comments during more than a year's worth of comment periods, and conducted more than 25 field hearings.

In the ensuing one and a half years, subcommittees in the U.S. House of Representatives and Senate have also held four Congressional hearings, soliciting testimony from expert witnesses on the CBRS and proposed changes to it. The CBRS expansion bills currently being considered by the House and Senate, therefore, are the culmination of six long years of thorough study, public input and review. Affected property owners, as well as subsidy-paying federal taxpayers, have had ample opportunity to comment during the federal agency process and to make their views known to their Congressional delegations throughout this period (and can continue to do so). **We, therefore, feel that it is highly appropriate for Congress to pass CBRS expansion legislation this year, and we urge the Subcommittee to work towards this goal by expeditiously considering S. 2729.**

S. 2729, the Coastal Barrier Resources Act Amendments of 1990

S. 2729 would expand the CBRS to include the 850,000 acres and 570 miles of shoreline along the Atlantic, Gulf, and Great Lakes Coasts that were identified as eligible by the Interior Department. In addition, S. 2729 will extend CBRS designation to qualified federally- and privately-protected coastal areas and automatically add eligible federal property as it becomes surplus to government needs. A study done by H. Crane Miller in April 1989, Turning the Tide on Wasted Tax Dollars, concluded that the federal government could save up to $10 billion over a twenty year period by expanding the CBRS to the areas slated for addition under S. 2729.

We strongly support S. 2729 and feel that, with the addition of a few amendments, the bill will greatly further the protection of the nation's remaining undeveloped coastline.

In the following pages, I will outline the major provisions of S. 2729 that we support, and the few amendments that we feel would greatly improve the protection that S. 2729 provides to System units. We urge the Subcommittee to include these amendments in S. 2729 when it marks up the bill.

Provisions of S. 2729 We Support

Expansion of the CBRS to the Great Lakes: One of our major priorities with CBRS legislation is to extend the protection of the CBRS to America's other two coastlines: the Pacific and Great Lakes shorelines. **As a result, we strongly support Section 4(a)(A)(iii) of S. 2729 which adds eligible Great Lakes areas to the CBRS.** S. 2729 will include all of the areas identified as eligible by the Interior Department -- with the exception of two units (MI-10 and MI-23) which are already developed -- for a total of 56,283 acres and 151 miles of shoreline. About 75 percent of these areas is in the State of Michigan.

The Great Lakes shoreline both qualifies for, and needs the protection of, the CBRS. These freshwater seas are plagued by extreme and unpredictable lake level fluctuations which have caused millions of dollars in damage to lakeside property. The Great Lakes shoreline is also frequented by severe winter storms, seiches and storm surges which result in major erosion and flooding problems for development there. Furthermore, building on lakeshore barriers often leads to the need for expensive and destructive structural stabilization measures -- such as seawalls and riprap -- to protect this development. On the other hand, coastal barriers left in their natural state can buffer landward communities from flooding and erosion damages.

CBRS designation will also help protect the important fish and wildlife resources of the Great Lakes, as well as the region's economically-vital tourism and fishing industries which are dependent on healthy natural resources. Many of the Great Lakes areas proposed for inclusion in the System are valuable coastal wetlands and nearshore waters that provide spawning and nursery habitat for important commercial and recreational fish species -- including the yellow perch, northern pike, lake trout, and small and largemouth basses. Similarly, more than 3 million waterfowl annually migrate through the Great Lakes, using these areas for critical feeding and resting grounds. As a result,

the Great Lakes Wetlands Policy Forum -- an international consortium of more than 20 conservation organizations -- has endorsed addition of eligible Great Lakes to the CBRS as an important component of its environmental agenda for preserving Great Lakes wetlands.

Unfortunately, Great Lakes shoreline areas are increasingly falling prey to the construction of resorts, marinas, and condominiums. By removing federal subsidies, CBRS designation of undeveloped Great Lakes coastal barriers will discourage this unwise and damaging shoreline development, thereby helping to protect valuable natural resources and reduce costly property damages. **We urge the members of the Subcommittee and the rest of the Senate to support the inclusion of all eligible Great Lakes areas in S. 2729.**

Inclusion of associated aquatic habitats: More than 90 percent of the non-protected areas proposed for CBRS designation under S. 2729 are coastal wetlands and nearshore waters -- known as "associated aquatic habitat" -- which are particularly unsuitable for development because of their wet condition, high flooding potential and unparalleled ecological importance. These valuable ecosystems rival tropical rainforests in biological productivity and provide habitat for two-thirds of the nation's commercially-important finfisheries and shellfisheries, millions of shorebirds and waterfowl, and numerous endangered species -- such as the West Indian manatee and the whooping crane.

We endorse S. 2729's addition of eligible associated aquatic habitats to the CBRS. The 1982 CBRA included all aquatic habitats associated with eligible, undeveloped coastal barriers in its definition of a "coastal barrier" and intended that these areas be included in the CBRS. However, the boundaries of the 1982 CBRS units were based on maps to be used for the denial of federal flood insurance under the 1981 Omnibus Budget Reconciliation Act (which was preempted by CBRA). Since these maps focused on the dry land areas above mean high tide, many eligible aquatic habitat areas were omitted from the 1982 System. Given that these aquatic habitats support many of the fish and wildlife resources that CBRA was enacted to protect, it is both appropriate and essential that S. 2729 include these areas within the System.

Broadening of the definition of a coastal barrier: The 1982 Act requires that

landforms be composed of "unconsolidated sedimentary materials" in order to be included within the CBRS. In the subsequent 6-year period during which the Interior Department undertook its studies, the scientific understanding of coasts improved greatly. One important conclusion reached by the Department was that coastal landforms composed of consolidated sediments perform the same valuable functions of buffering mainland communities and protecting landward wetlands as coastal barriers composed of unconsolidated sediments. These landforms also are adversely impacted by development.

As a result, the Interior Department recommended that the unconsolidated sediments requirement be deleted from the definition of a coastal barrier. This change lead the Department to recommend the addition of granitic outcroppings in New England, wooded clay ridges in Louisiana (known as cheniers) and carbonate-cemented areas in the Florida Keys, U.S. Virgin Islands and Puerto Rico. S. 2729 adopted these recommendations.

Although they differ from the sandy barrier islands which comprised the bulk of the area included within the original CBRS, addition of these landforms is consistent with the goals of CBRA and would greatly improve the protection of these valuable coastal areas. Furthermore, although these areas are not subject to the high erosion rates of many sandy barriers, they are impacted by other equally destructive hazards -- such as high hurricane landfall probability, sea level rise and severe flooding. These hazards make development of these coastal barriers equally as dangerous to public safety and costly for the federal government. **We strongly support Section 2(a)(1) of S. 2729 which deletes the unconsolidated sediments requirement from the definition of a coastal barrier and allows for the inclusion of landforms composed of consolidated materials.**

Florida Keys: In particular, the environmental community feels that it is critical to add the eligible areas in the Florida Keys to the System. The Florida Keys are home to numerous unique coastal resources of national significance which belong to every American. These include the continent's only living coral reef system and more than 15 endangered and threatened species, many of which are found nowhere else in the world -- such as the miniature key deer, key tree cactus and the key largo woodrat. The coastal barriers of the Keys also protect valuable seagrass beds and mangroves that provide habitat for the over 500 fish species inhabiting the nearshore waters of the Keys and its reefs.

These resources, however, are being increasingly threatened by coastal development in the Keys. According to coral reef experts, the number one threat to the health of the Keys coral reef system is pollution generated from onshore development, primarily from sewage outfalls and septic tanks. This degradation is both an economic and an environmental tragedy because it undermines the two largest industries in the Keys -- tourism and fishing -- which rely on pristine natural resources. Inclusion of undeveloped Keys shoreline within the CBRS will help discourage the shoreline construction which is harming the unique natural environment of the Keys.

CBRS designation of eligible Keys areas will also help reduce the number of people at risk when the next major hurricane strikes the Keys. With current population levels, it will already take more than 35 hours to completely evacuate the Keys before a hurricane, yet the National Weather Service can only provide warning 12 hours prior to landfall. Furthermore, the evacuation route to safety lies over a 150-mile, two-lane highway over 47 bridges. A single stalled car, flooded causeway or stuck drawbridge could block the route and prevent evacuation. And there are no shelters in the Keys built to withstand a major hurricane (winds greater than 110 miles per hour). Allowing development in the Keys to go unchecked will greatly decrease the chances that current residents will be able to safely evacuate.

The Keys are known for their destructive storms, having been home to two of the top five most intense hurricanes to strike the United States -- including the most intense hurricane on record. With 200 mph winds, this 1935 storm killed 400 Keys residents and destroyed all buildings in the Matecumbe Keys area. To make matters worse, Dr. William Gray, a renowned hurricane expert, recently predicted at the Governor's Hurricane Conference in May, that the 1990 hurricane season will mark the beginning of a decade of increased hurricane activity for Florida. Monroe County's own Civil Defense Director admits that Keys residents are "sitting ducks" in a major hurricane. Clearly it is irresponsible, if not unethical, for the federal government to continue offering subsidies which encourage additional coastal construction in such an unsafe area.

In addition, public services and facilities in the Keys -- such as roads, schools, drinking water supplies, and sewage and solid waste disposal --are already overburdened

with existing population levels in the Keys. Traffic levels have significantly outpaced road capacities in many areas, the county has only about 5 years of landfill space left, and the region is already withdrawing 100 percent of the drinking water it is allowed by permit to draw through its 130-mile pipeline from the mainland. Under the local land use plan developed according to state law, permits for new development issued by the county must be conditioned on the availability of adequate public facilities and services to accommodate that development. Monroe County has been so lax about enforcing this requirement, however, that last year the State threatened to enforce a moratorium on all permits for new development in many areas in the Keys. The System's removal of federal financial incentives in undeveloped areas will provide a much-needed complement to these currently-inadequate local land use efforts. Addition of eligible Keys areas to the CBRS will also result in better services for current residents and reduce the tax increases for new facilities that will be necessary if development continues at its current rate.

Members of the development community in the Keys have sparked unfounded fears that inclusion of undeveloped Keys areas in the CBRS will result in increased resort development. The CBRS does not prohibit development, it simply withdraws federal assistance for such development. As a result, some development has taken place in the CBRS since 1982, particularly in areas experiencing intense development pressure, such as Florida. But the density of development within even the most developed CBRS units is much lower than that of heavily developed barrier islands outside the System. This is because the removal of federal subsidies provides a disincentive for all types of development, including expensive resorts which stand to incur greater monetary damages in the event of a hurricane. As a result, resort development has not been favored within the System. In fact, less than 10 of the 186 Atlantic and Gulf Coast units currently in the CBRS have experienced resort development since the CBRS was created in 1982. There is no reason to believe that the situation will be different in the Keys.

There also have been fears that if Keys areas were no longer eligible to receive federal flood insurance, new construction that took place in CBRS units, would not be required to adhere to any building code standards. This is simply not the case. Under the NFIP, Monroe County is required to enforce safe building codes for all new development in the county, regardless of whether the homeowner gets federal flood insurance or not. The

CBRS would not change this. If FEMA chose not to require Monroe County to enforce these standards in CBRS units, FEMA would be breaking the law and subject to litigation.

In conclusion, addition of eligible undeveloped Keys areas to the CBRS would help protect the unique natural resources of the Keys, protect the lives of current residents, and bolster state and local land use efforts to manage growth in the Keys.

Puerto Rico and the U.S. Virgin Islands: The undeveloped coastal barriers of the U.S. Virgin Islands and Puerto Rico also qualify for and would greatly benefit from the System's protection. Hurricane Hugo clearly showed the danger of developing along these shorelines. Yet burgeoning coastal populations in both countries are causing destruction of coastal resources through urban run-off, dredging, sand mining, and shoreline construction. Inclusion of Puerto Rico and Virgin Islands areas within the CBRS would help reduce this environmental degradation. CBRS designation of eligible Puerto Rico and Virgin Island areas is made even more appropriate by the fact that the citizens of Puerto Rico and the Virgin Islands do not pay U.S. federal taxes, yet these countries receive all of the federal subsidies, flood insurance, and disaster relief assistance available to the fifty states.

Inclusion of secondary barriers in large bays: Secondary barriers are the small coastal barriers created by wind-driven waves along the shores of large bays. Although not subject to the direct influence of ocean or Great Lakes currents, they have a composition similar to ocean-front barriers and protect bayside communities and critical wetland ecosystems from damaging bay waves. As a result, the Interior Department's final recommendations, and subsequently S. 2729, calls for the addition of approximately 67,000 acres and 170 shoreline miles of secondary barriers within the Chesapeake, Narragansett, Delaware, and other large bays.

Inclusion of these areas within the CBRS is especially important to protect the valuable estuaries lining the nation's major bays. For example, the wetlands of the Chesapeake Bay provide resting and feeding grounds for more than 75 percent of the waterfowl migrating along the Atlantic Coast and in 1983 produced half of the blue crab harvested in the United States. Yet, at the same time, many bays are increasingly

plagued by the pollution generated by bayside development which causes rampant algal growth and deprives bay waters of life-supporting oxygen. As a result, we believe the addition of secondary barriers within the CBRS furthers the goals of CBRA and support S. 2729's inclusion of these areas.

Inclusion of "Otherwise Protected" Areas: The 1982 CBRS excluded all "otherwise protected" areas -- Federal, state, local or private lands managed "primarily for wildlife refuge, sanctuary, recreational, or natural resources conservation purposes" -- because it was thought that CBRS designation of these areas would be duplicative. Since then, however, it has become clear that these areas could greatly benefit from inclusion within the CBRS.

S. 2729 will add to the CBRS all eligible federally- and privately-protected coastal barriers. This would include such areas as national seashores and parks, national wildlife refuges, and recreation areas, as well as private Nature Conservancy and National Audubon Society preserves. The bill will also grant Governors of coastal and Great Lakes states the option of including any of the state- and locally-protected areas in their states within the CBRS. In addition, S. 2729 retains within the CBRS all of the otherwise protected areas which were inadvertently included in the CBRS in 1982.

The otherwise protected areas lining America's coast -- South Padre Island National Seashore, Cape Hatteras National Seashore, Sleeping Bear Dunes National Lakeshore to name just a few -- are some of the nation's most treasured coastal lands. It is, therefore, highly appropriate to provide them with the most complete and effective protection that we can. The actual protection received by these so-called protected areas, however, varies widely between federal agencies, states, localities and private organizations, and in many instances is inadequate. As a result, there are numerous examples where inappropriate, taxpayer-funded development has occurred or been proposed on supposedly protected coastal lands.

The most egregious example of this occurred in Gulf Shores State Park in Alabama where a hotel and convention center were built in the state park and are now insured with federal flood insurance. Numerous other examples of inadequately-protected "otherwise protected" areas are cited on pages 13-14 of my September 1989 testimony

before this Subcommittee.

The Department of the Interior has historically supported the inclusion of otherwise protected areas within the System. In his 1982 Report to Congress on the Omnibus Budget Reconciliation Act, the Interior Department Secretary recommended the inclusion of otherwise protected areas within the CBRS because of the "difficulty in determining whether protection is actual or permanent...and the unreasonable inconsistency in the treatment of undeveloped coastal barriers created by the exclusion [of otherwise protected areas]." And in its final report to Congress, although falling short of direct inclusion of these lands, the Department recommended the automatic inclusion of any otherwise protected area made available for development inconsistent with CBRA's purposes and the long-term conservation of the barrier. The report also called for the addition of all privately-owned inholdings in eligible protected areas.

Furthermore, CBRA already contains numerous exemptions for activities that should take place in protected areas -- such as scientific research, recreation, habitat enhancement -- as long as such activities are consistent with the Act's purposes to protect coastal resources, public safety and the federal budget. As a result, if these areas are truly protected as their title of "otherwise protected" states, than addition to the System will not impede any normal activities that occur within these areas. If, however, protection is inadequate, then CBRS designation will provide another layer of needed protection from inappropriate development, and at least ensure that federal tax dollars were not used to destroy or degrade these treasured areas.

We have been working to include all eligible otherwise protected areas within the CBRS since the System's creation in 1982. **We, therefore, strongly support S. 2729's inclusion of federally- and privately-protected areas, and its retention of otherwise protected areas currently in the CBRS. We would prefer, however, that eligible state- and locally-protected areas also be directly included within the CBRS, rather than allowing this to be an optional provision.** Making inclusion of these areas within the CBRS voluntary will mean that the areas most needing the System's protection will be the last to get it. An opt-in provision, however, is a good first step towards the goal of including all state- and locally protected coastal barriers within the CBRS. If implemented, we would urge members of the Senate to encourage their states to take

advantage of this opportunity to further protect their state and local coastal park lands within the CBRS.

Automatic inclusion of excess federal lands: S. 2729 will automatically include within the CBRS all federally-owned coastal barrier lands found to be in excess of government needs. This provision is essential if the government's land selling policies are to be made consistent with the purposes of CBRA. Because of the intense development pressures in most coastal areas, excess federal lands are likely to be bought by private development interests. Without automatic CBRS designation, development in these areas would be eligible for federal subsidies. This would serve to increase the federal government's liability in unstable coastal areas and would run counter to the goals of CBRA. **As result, the environmental community strongly supports Section 4(a)(1) and (2) of S. 2729 which provides for the automatic inclusion of eligible surplus government lands within the CBRS. We also recommend that this section be amended to explicitly apply to eligible lands slated for disposal by the Resolution Trust Corporation (RTC) and the Federal Deposit Insurance Corporation (FDIC).**

Many savings and loan establishments have failed because of investments in risky real estate ventures, including projects on erosion- and flood-prone coastal barriers. As the RTC and FDIC sells undeveloped coastal properties to recoup the enormous cost of the savings and loan bailout, it is imperative that the federal government does not end up adding to its losses by increasing its federal flood insurance and disaster relief liability in hazard-prone coastal areas.

For example, a portion of the Mobile Point CBRS unit (Q01) in Alabama, which is slated for deletion from the CBRS by S. 2729, is owned by Empire of America Federal Savings Bank which recently came under conservatorship of the RTC. The Alabama Insurance Underwriters Association (AIUA) voted to not extend hazard coverage to this area because it posed too great a liability to their membership and the industry as a whole, and also ran counter to the goals of CBRA. In fact, the AIUA estimated that, due to its extreme vulnerability to coastal hazards, the development proposed by Empire would increase the industry's liability within the entire State by almost one-third. Clearly, providing subsidies for development in this area would not represent a sound investment of federal tax dollars.

In addition, many RTC and FDIC properties have been found to have high ecological value, such as providing critical habitat for endangered species. For example, 8,000 acres of the proposed 14,000-acre Playa del Rio resort development in southern Texas are beach and wetland areas which serve as nurseries to fish and shrimp, a stopover for migrating birds, and a refuge for such endangered species as ocelots and jaguarundis. Yet the RTC has applied for a section 404 permit from the U.S. Army Corps of Engineers to fill these wetlands in order to boost the value of the land. This area was recommended for addition to the System by the Department of the Interior as part of the Boca Chica unit (T12) and will be included in the CBRS by S. 2729. It makes no sense and runs counter to the goals of many environmental laws, including CBRA, for one arm of the federal government to be selling environmentally-important coast lands for private development when all other federal agencies are directed by law to make their funding activities consistent with the protection of these areas and the natural resources they support.

Disposal of Dredged Materials: The disposal of dredged materials can have serious adverse impacts on the environment, such as the siltation or burial of shellfish beds and increased turbidity of nearshore waters. Nonetheless, CBRA allows this activity to take place within CBRS units without consideration of the Act's purposes. The Interior Department recommended that this situation be amended in its draft recommendations, but then reversed its opinion in its final report. S. 2729, however, would rectify this.

We endorse Section 4(1) of S. 2729 which would require that the disposal of dredged materials within the CBRS be done in a manner consistent with the purposes of the Act. It is only appropriate that this activity be restricted in the same manner as other activities in CBRS units. This provision would not prohibit federally-funded maintenance dredging within CBRS units but would merely ensure that the disposal of dredged materials was done in an environmentally-sensitive manner.

Recommended Amendments to S. 2729

We strongly support passage of S. 2729 and urge all members of the Senate to cosponsor this bill. We also feel, however, that S. 2729 should be amended with the following provisions in order to better fulfill the goals of the CBRS to protect coastal

resources, public safety and the Federal Treasury.

Mapping of Eligible Pacific Coast Areas: The Pacific Coast is the only coast in this country which is not being considered for inclusion in the CBRS. Yet Pacific coastal barriers deserve and need the System's protection just like the Atlantic, Gulf, and Great Lakes Coasts. In 1985, the Interior Department did a preliminary inventory which identified roughly 200 miles of shoreline and 130,000 acres in California, Oregon, Washington, Hawaii, and American Samoa which potentially qualified for inclusion in the CBRS. It is not equitable to deny subsidies on other coasts while still providing them on the Pacific Coast.

Pacific coastal barriers protect fertile, productive wetlands which are vital spawning grounds, staging areas, and nurseries for many commercially and recreationally important fish and shellfish, such as salmon and crab. They also provide essential resting and feeding areas for thousands of birds migrating along the Pacific Flyway. Furthermore, these barrier spits and river-mouth barriers provide critical habitat for more than 10 species which are federally threatened or endangered, including the bald eagle, American and Arctic peregrine falcons, Aleutian Canada goose, California least tern and Hawaiian goose. Many of the Pacific Coast's valuable wetlands, however, have already been destroyed by urban and industrial development. For example, the San Francisco Bay -- a critical wintering area for waterfowl -- has only 20% of its original coastal marsh intact. CBRS designation would help protect the remaining wetlands of the Pacific Coast.

Tsunamis, severe winter storms, and riptides also cause damage and erosion along the Pacific Coast, making shoreline development there a dangerous and costly proposition. Since 1900, there have been 60 West Coast storms with waves greater than 10 feet high. Furthermore, EPA scientists predict an increase in relative sea levels along the Pacific Coast of between 4 and 7 feet in the next century. This rise will greatly intensify the problems of erosion, flooding, cliff collapse and saltwater intrusion into drinking water supplies along the Pacific Coast, increasing the need to guide development away from shoreline areas.

Expanding the CBRS to the Pacific Coast will help to protect this coast's important natural resources from overdevelopment, reduce the number of buildings constructed in

the path of dangerous and costly storms, and help reduce the federal deficit. It has been estimated that the federal government could save up to $700 million in subsidies by adding eligible Pacific Coast areas to the System. This is especially important during the current budget crunch. The House CBRS bill, H.R. 2840, includes a provision to map Pacific Coast coastal barriers. **We urge the members of the Subcommittee to amend S. 2729 to include a provision directing the Interior Department to map the Pacific Coast areas that qualify for CBRS designation.**

Addition of Remaining Eligible Military Lands: We strongly support Section 4(a)(A)(iv)(I) of S. 2729 which retains within the CBRS the military and Coast Guard areas currently in the System. The CBRS currently includes 15,000 acres and 42 shoreline miles of military and Coast Guard lands. Activities on these lands which are considered essential for national security are exempted from CBRA's funding prohibition in Section 6 of the 1982 Act, as are the construction, operation, maintenance, and rehabilitation of Coast Guard facilities.

S. 2729, however, does not include any of the additional military and Coast Guard lands which qualify for CBRS designation. The Interior Department has identified another 30,000 acres and 45 shoreline miles of military and Coast Guard lands which meet the criteria for inclusion in the CBRS.

Addition of military and Coast Guard lands in the CBRS ensures that federal tax dollars are not misspent on inappropriate and unnecessary development in fragile coastal barrier areas. The Department of Defense proposal to construct a beach clubhouse at the Marine Corp's Camp LeJeune Military Base in North Carolina (unit L05), although never built, clearly shows that not all military spending is essential for national security.

Government development of coastal barriers is just as environmentally-destructive as private coastal development. Exempting the federal government from standards that private citizens are required to meet is nothing short of hypocritical. Such a double standard has lead to such environmental disasters as the clean-up of the Department of Defense's nuclear weapons facilities. **We, therefore, strongly recommend that S. 2729 be amended to include the additional military and Coast Guard lands that qualify for CBRS designation. In addition, we recommend that the Subcommittee clarify what**

types of military activities should be considered as truly essential for national security.

Prohibition on Federally-funded Activities Affecting CBRS Units: In its 1987 draft recommendations, the Interior Department concluded that the funding prohibition in Section 5 of CBRA applies to activities specifically directed to a purpose within a CBRS unit -- such as the construction of a wastewater treatment plant or a bridge -- even if the activity takes place outside the System. The Department further recommended that it develop guidance to clarify this interpretation for federal agencies.

In its final recommendations, however, Interior reversed its opinion and recommended that federal agencies be allowed the discretion to decide whether such federally-funded projects are appropriate on a case-by-case basis. This decision was made even though the Department acknowledged that on several occasions agencies have chosen to fund projects that encouraged development within a CBRS unit.

Furthermore, developers are trying to obtain an outright exemption to specifically allow federal assistance for activities located outside of the boundaries of unit T11 on South Padre Island in Texas that relate to a development activities within that unit. This would permit federally-funded infrastructure in the mainland town of Port Mansfield that would facilitate the building of a proposed destination resort on South Padre Island by the American General Life Insurance Company.

Such an exemption would set a dangerous precedent and undermine the purposes of CBRA. Unless clearly prohibited by legislative language, federal agencies can and will continue to undermine CBRA's intent to deny federal assistance that facilitates development within the System. **Therefore, we call upon the Subcommittee to amend S. 2729 to clarify that federal assistance is prohibited for any project which directly affects development within a CBRS unit, even if the project occurs outside the CBRS. We also urge the Senate to oppose any exemptions to this prohibition.**

Recommended Amendments for Specific CBRS Units

In addition to the above recommended policy amendments to S. 2729, we also urge the subcommittee to make the following changes to the boundaries of the following

proposed and existing CBRS units in S. 2729:

Mobile Point, Alabama -- unit Q01: In its final report, the Interior Department recommended that Congress delete a portion of unit Q01 -- commonly referred to as the U.S. Capitol Corporation property -- if it had been included by mistake, as has been contended. Regardless of whether or not there was a misunderstanding when the line was drawn in 1982, the property qualified as an undeveloped coastal barrier in 1982 and continues to qualify for CBRS designation. This barrier is particularly hazard-prone and unsuitable for development (see page 14), yet a $60 million golf course and residential development project has been proposed for this tract.

The Alabama Marine Environmental Scientists Consortium -- comprised of 21 Alabama colleges and universities -- has also testified that this development would result in serious degradation of the area's important wetland resources and impair the barrier island's ability to protect mainland areas from storms. This property clearly qualifies for inclusion and is an inappropriate site for federally-subsidized development for environmental and economic reasons. **As a result, we recommend that S. 2729 be amended to retain protection of this property within the CBRS.**

Daufuskie Island, South Carolina -- unit M13: Following the Interior Department's recommendations, S. 2729 would delete a portion of this unit which is supposedly not subject to wind, wave and tidal energies.

On its original 1981 CBRS maps, the Department recommended the inclusion of all of the island. After a meeting with the island's prospective developers in 1982, however, Interior completely reversed itself and recommended that none of the island be included. Eventually a political compromise was struck, reflected by the unit's current boundary. Not surprisingly, the area which will be deleted by S. 2729 has been slated for development by property owners who are anxious to have federal flood insurance for their project. We strongly feel that the proposal to delete this area from the System is the result of political considerations, not solid scientific justification. Deleting a portion of an existing unit from the System because it is proposed for development undermines the protection of the entire System and sets a dangerous precedent. **Therefore, we urge the Subcommittee to amend S. 2729 so that no area is deleted from unit M13.**

Pawleys Inlet, South Carolina -- unit M03: **The area south of unit M03, Debidue Beach, qualifies as an undeveloped coastal barrier according to the Interior Department but was not recommended for inclusion because of strong development pressures.** Hurricane Hugo clearly demonstrated last September, however, the vulnerability of coastal barrier development along this stretch of shoreline. **Since the area clearly meets the qualifications for CBRS designation, we recommend that S. 2729 be amended to add all of the eligible area south of unit M03.**

Cat Island, Mississippi -- unit R03: In its final recommendations, the Interior Department admitted that all of Cat Island qualifies for inclusion within the CBRS but did not recommend any additions to the unit because "DOI recommended it in 1982 and Congress considered it and rejected it." Only two small portions of the island were included in the CBRS in 1982 because of vocal opposition from the island's landowner, who has since passed away. This island has significant ecological value and has been considered for acquisition and addition to the Gulf Island National Seashore. **We recommend that S. 2729 be amended to include all of Cat Island.**

Vero Beach, Florida -- Unit P10: The area adjacent to the existing P10 unit consists primarily of citrus groves. These groves were excluded from the CBRS in 1982 because of concerns that CBRS designation would prohibit the offering of agricultural subsidies, which was not the intent of CBRA. Most of these groves, however, have been slated for residential development which would have a much greater adverse impact on the federal government's liability, the environment and public safety. **Rather than excluding this area, we recommend that S. 2729 be amended to include the eligible citrus groves surrounding P10, and if necessary, an exemption offered for citrus subsidies in unit P10.**

T11 South Padre Island -- The Interior Department acknowledged that the 7.5 mile stretch of South Padre Island north of the State Park still meets the criteria for inclusion within the CBRS. Nonetheless, it opted not to recommend its addition. **We urge the subcommittee to amend S. 2729 to include all of the eligible area on South Padre Island.** This area has clearly been excluded for political reasons, despite the fact that it is a particularly inappropriate location for the federal government to subsidize

development because of its high erosion rate, severe flooding and overwash potential, and lack of multiple hurricane evacuation routes.

Coyote Island, Texas: This 320-acre secondary barrier is located behind Mustang Island, just two miles north of Shamrock Island (unit TX-17), a similar barrier slated for inclusion by S. 2729. Coyote Island and its surrounding wetlands provide important habitat for many fish and bird species and are very prone to flooding. **We believe that this area meets the criteria for designation but was inadvertently overlooked by the Interior Department and, therefore, urge the Subcommittee to include it within S. 2729.**

Enighed Pond, St. John, Virgin Islands: This 19-acre salt pond is adjacent to Turner Bay and the town of Cruz Bay on St. John. Lined almost entirely by mangroves, Enighed Pond, though degraded by dumping and some sewage pollution, is a known habitat for endangered and threatened species. This valuable wetland area also serves as a sediment trap for Turner Bay which includes coral and turtle grass habitats. Like many of the other coastal barriers lining the U.S. Virgin Islands, however, Enighed Pond and its surrounding shoreline are threatened by environmentally-damaging development. This site has recently been proposed for dredge and fill operations to turn it into a marina. **Clearly, this valuable area could benefit from the System's protection, and we, therefore, request that S. 2729 be amended to include it within the CBRS.**

Conclusion

The last few years have brought us Hurricane Hugo's devastating rampage, contaminated beaches closed from pollution, and increasing concern over wetlands loss and global climate change -- all highlighting the need to better protect our fragile coasts and guide future development away from the water's edge. This period has also been marked by a growing concern over the federal deficit. S. 2729 provides Congress with a rare and important opportunity to address all of these concerns, protecting the nation's coasts while reducing the federal deficit.

The Senate recognized this same opportunity in 1982 when 28 Democratic Senators and 31 Republican Senators joined together to cosponsor the Senate bill which created the 1982 Coastal Barrier Resources Act. We hope this same bipartisan coalition of environmentalists, public safety proponents and fiscal conservatives will join together now to expand and strengthen this important program. On behalf of the National Wildlife Federation and the other 24 organizations which I am speaking for, I urge all of the members of this Subcommittee and the rest of the Senate to join Senator Chafee and the other cosponsors of S. 2729 in working for expeditious passage of S. 2729 with our recommended amendments.

Thank you for the opportunity to testify.

33-662 0 - 90 - 4

Working for the Nature of Tomorrow®
NATIONAL WILDLIFE FEDERATION
1400 Sixteenth Street, N.W., Washington, D.C. 20036-2266 (202) 797-6800

July 11, 1990

The Honorable John Chafee
567 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Senator Chafee:

We, the 97 organizations representing more than 7 million collective members and supporters from 52 states and territories, urge you to cosponsor S. 2729, legislation to expand the Coastal Barrier Resources System (CBRS).

Created in 1982, the CBRS is the only program that removes federal financial incentives for new coastal development. Within the 450,000-acre System, federal flood insurance policies and subsidies for new construction -- such as roads, sewers, bridges, and housing -- are denied. The CBRS does not prohibit development, but requires developers to shoulder the financial burden of unsound building decisions rather than the federal taxpayer.

Hurricane Hugo was a tragic reminder of the folly of building too close to the shore. When this violent storm swept through the Caribbean and South Atlantic, lives were lost, homes and businesses destroyed, and billions of tax dollars were required for disaster relief. The same coastal development that is vulnerable to hurricanes also causes environmental catastrophe by destroying wildlife habitat and polluting coastal waters. Clearly, it makes no sense -- for public safety, the economy, or the environment -- to promote future disaster by encouraging the development of the nation's few remaining natural shoreline areas.

S. 2729 would expand the CBRS to include another 800,000 undeveloped acres along the Atlantic and Gulf Coasts that were recommended for inclusion by the Department of the Interior. The eligible areas of the Great Lakes shoreline -- approximately 58,000 acres -- would also be protected within the System for the first time. It has been estimated that the federal government could save as much as $10 billion over the next 20 years by prohibiting new federal subsidies in these areas.

More than 90 percent of the proposed additions are valuable coastal wetlands and nearshore waters, that are vital to the nation's waterfowl populations and commercial and recreational finfisheries and shellfisheries. The bill would also include for the first time areas along the nation's major bays, such as the Chesapeake and Narragansett, as well as portions of the Virgin Islands, Puerto Rico, and the Florida Keys.

Adding the Florida Keys to the CBRS is especially critical given the region's nationally significant coastal resources which are threatened by overdevelopment -- including the continent's only living coral reef. Public safety is also compromised by uncontrolled growth; it already takes more than 35 hours to completely evacuate the Keys before a hurricane.

Further population growth will simply result in more deaths when a major hurricane strikes. Moreover, hurricane specialists have predicted that the 1990 hurricane season will mark the beginning of a decade of increased hurricane activity in Florida. Removing federal subsidies for new construction in eligible, undeveloped portions of the Keys will help bolster the state's management efforts, protect the lives of current residents, and conserve a national environmental treasure.

S. 2729 will also help protect coastal parks, seashores, wildlife refuges and recreation areas -- known as "otherwise protected" areas -- from inappropriate taxpayer-funded development. The bill will include within the CBRS all eligible federally- and privately-protected areas and give Governors the opportunity to include any state- and locally-protected areas within their states. CBRS designation of park lands will allow for normal park activities -- such as recreation, wildlife management, and scientific research -- but will prevent inappropriate park uses, such as commercial or residential development. This is critical as there are numerous examples of ecologically-damaging activities being proposed and taking place in our treasured coastal parks.

While we urge your cosponsorship of S. 2729, we are seeking two strengthening amendments. S. 2729 does not include a provision that would direct the Interior Department to map the areas along the Pacific Coast which are eligible for inclusion within the CBRS. The Pacific Coast deserves and qualifies for the System's protection just as the shorelines of the nation's other three coasts do. We urge you to support a Pacific Coast mapping amendment to S. 2729.

Similarly, S. 2729 does not include the additional 30,000 acres of military and Coast Guard lands that have been identified as qualifying for the System's protection, even though military activities essential for national security are exempt from the System's funding prohibition. It is hypocritical for the government to ask citizens to accept funding restrictions on their lands if it is not willing to meet the same standards itself. We urge you to support the protection of all eligible military lands within the System.

In 1990, Congress will have to work harder than ever to find ways to make the required budget cuts. Expansion of the Coastal Barrier Resources System provides a rare opportunity to reduce the deficit while protecting human life and the environment. In 1982, 59 Senators -- 28 Democrats and 31 Republicans -- cosponsored the original Coastal Barrier Resources Act. We urge you to join in this bipartisan tradition of fiscal intelligence and environmental sensitivity by cosponsoring S. 2729 and supporting amendments to map the Pacific Coast and add new military lands.

Sincerely,

American Littoral Society
American Littoral Society -- Florida
American Red Cross
Association for the Preservation of Cape Cod (MA)
Audubon Society of Rhode Island
Big Pine Key Civic Association (FL Keys)
Black Hills Audubon Society (WA)
Cascade Chapter of the Sierra Club (WA)
Center for Marine Conservation
Central Coast Conservation Center (CA)
Chesapeake Bay Foundation (MD/VA)
Clean Ocean Action (NJ)
Coast Alliance
Coastal Bend Sierra Club (TX)
Committee to Preserve Assateague Island (MD/VI)
Common Ground of the Florida Keys, Inc.
Connecticut Fund for the Environment
Conservation Council of North Carolina
Eastern Michigan Environmental Action Council
Environment Council of Rhode Island
Environmental Association of St. Thomas/St. John (VI)
Environmental Decade (WI)
Florida Audubon Society
Florida Chapter of the Wildlife Society
Florida Defenders of the Environment
Florida Keys Audubon Society
Florida Keys Citizens Coalition, Inc.
Florida Keys Environmental Fund
Florida Wildlife Federation
Friends of Deer Island (MI)
Friends of Florida (FL Keys)
Frontera Audubon Society (TX)

Galveston Regional Group of the Sierra Club (TX)
Garden Club of America
Georgia Chapter of the Sierra Club
Great Lakes Regional Office, National Audubon Society
Great Lakes United
Gulf Coast Group of the Sierra Club (MS)
Gulf Coast Regional Office of the Center for Marine Conservation (TX)
Houston Sierra Club (TX)
Key Deer Protection Alliance (FL Keys)
Lake Michigan Federation
Last Stand (FL Keys)
League for Coastal Protection (CA)
League of Ohio Sportsmen
League of Women Voters of Massachusetts
League of Women Voters of Michigan
League of Women Voters of the United States
League of Women Voters of the Virgin Islands
Lone Star Chapter of the Sierra Club (TX)
Lower Rio Grande Valley Group of the Sierra Club (TX)
Massachusetts Audubon Society
Michigan Audubon Society
Michigan United Conservation Clubs, Inc.
Mision Industrial de Puerto Rico
National Audubon Society
National Coalition for Marine Conservation
National Parks and Conservation Association
National Taxpayers Union
National Wildlife Federation
Natural History Society of Puerto Rico
Natural Resources Council of Maine
Natural Resources Defense Council
Natural Resources Defense Council, San Francisco
North Carolina Chapter of the Sierra Club
North Carolina Coastal Federation
North Carolina Wildlife Federation
Ohio Audubon Council
Ohio Coastal Resource Management Project
Ohio Environmental Council
1,000 Friends of Oregon
Oregon Natural Resources Council
Oregon Shores Conservation Coalition
Pacific Northwest Natural Resources Center (OR)
Portland Audubon Society (OR)
Puerto Rico Conservation Foundation
Save The Bay (RI)

Seattle Audubon Society (WA)
Sierra Club Midwest Office
Sierra Club, National Coastal Committee
South Bay Task Force (TX)
South Carolina Wildlife Federation
Sportsmen Conservationists of Texas
Texas Center for Policy Studies
Texas Committee on Natural Resources
Texas Environmental Coalition
Texas Organization for Endangered Species
The Conservancy, Inc. (FL)
The Georgia Conservancy
The Wetlands Conservancy (OR)
Tip of the Mitt Watershed Council (MI)
Tropical Audubon Society (FL)
United Auto Workers Conservation Department
Upper Peninsula Environmental Coalition (MI)
Washington Environmental Council
Washington State Office of the National Audubon Society
Western Michigan Environmental Action Council

Testimony of Mike Barr, Co-chairperson,

Coastal Barrier Relief Fund

Before the Subcommittee on Environmental Protection

Committee on Environment and Public Works

United States Senate

On S. 2729, the Coastal Barrier Resources Act Amendments

July 11, 1990

COASTAL BARRIER RELIEF FUND

P.O. BOX 1361

KEY LARGO, FLORIDA 33037

(305) 852-4577

Mr. Chairman, Members of the Committee, my name is Mike Barr. I am co-chairperson of the Coastal Barrier Relief Fund (CBRF). Thank you for allowing me to appear before you today to present my views on the potential impact of including large portions of the Florida Keys in the Coastal Barrier Resources System (CBRS).

The group I represent was organized in February of 1989 to oppose the inclusion of the Florida Keys in the CBRS. Our membership consists of 700 individuals, businesses and organizations. In addition to those who have joined the CBRF, many others have voted to support our efforts. The Board of County Commissioners of Monroe County has passed several resolutions opposing the inclusion of the Keys and has contributed substantial financial resources to this effort. Of the four newspapers serving unincorporated Monroe County, three, The Reporter, The Islamorada Free Press, and the Island Navigator, have taken strong editorial positions in opposition to the Keys being included. The fourth local paper, The Keynoter, has not taken a firm position, but has expressed significant concern regarding inclusion. Rarely has our community responded with such solidarity to any issue. And for the first time, the County government approved hiring Washington lobbyists to assist in this effort.

Those of us who live in and love the Keys are aware the Keys are a unique national treasure. We are well-aware that our off-shore waters and reefs are slowly being destroyed; we all have our pet theories as to what is causing this, BUT WE ALSO KNOW THE PEOPLE OF THE KEYS ARE HER MOST VALUABLE RESOURCE. We are fighting and will continue to fight the destruction of our resources each and every day. We honestly believe we are making progress and if we are allowed to continue, our problems can be solved.

One of the steps we have taken is developing a comprehensive county land use plan. It is one of the most restrictive land-use plans in the nation. Environmental conditions and habitat analyses are the cornerstones of the plan. When the plan was formulated, densities and intensities were substantially reduced in an effort to preserve the rural nature of our islands.

Our elected officials are listening to the calls of the residents and are greatly limiting non-residential development. Every building permit issued in Monroe County is reviewed by the State Department of Community Affairs (DCA) before construction can begin.

The land use plan strictly forbids any development on wetlands, and there is a 50 foot setback when wetlands are a part of the property. Every permit that involves wetlands

in any way is reviewed by several state and federal agencies as well as our county and the DCA. Even a permit to build a cage for the rehabilitation of injured wild birds in a wetlands area will take more than a year to pass through this regulatory maze. I urge you not to underestimate the determination of our local government and the citizens to save our Keys.

As I am certain you and your staff are aware, the recommendation to include the Keys in the CBRS is an emotional issue for the residents of Monroe County. The reason is simply this - the federal and state governments already own 95 percent of the County. And if 109,000 acres of the Keys are included in the CBRS, our communities cannot continue to exist as communities. From our perspective, the state and federal governments continue to encourage the use of the Keys as a playground and are simultaneously taking away the basic tools we need to address the problems all these people create.

I first became concerned about the CBRS during a DOI public hearing on Plantation Key in 1985. I listened as Frank McGilvery, the project manager for the proposed expansion of the CBRS into the Keys, discussed with the mainlanders present at the meeting the wisdom of removing the residential population of the Keys. This conversation eventually became the DOI's "Next Step."

When the first maps were released in 1987, I was stunned by the scope and the hundreds of homes included in what was supposed to be undeveloped land. I wrote a letter to the DOI describing this problem, supported by maps and aerial photographs of one area; the letter appears in Volume 14 of the DOI's "Report to Congress". In the last version of the maps, about 25% of the area I described was excluded (see attached map). Yet, hundreds of homes to the north and south of the now-excluded portion remain.

But map lines are only a small part of the problem. I believe the potential impact of this legislation on the fabric of our communities is the real issue the Congress should examine.

Let me give you some examples:

The Keys are not undeveloped barrier islands. There are approximately 80,000 residents, and hundreds of thousands of tourists, in a string of small communities stretching 120 miles from the mainland to Key West. Our county government has all the problems most local governments contend with as well as problems unique to the Keys. A problem we're currently wrestling with is solid waste disposal. We're looking very closely at composting -- not a new technology -- but new in its scope. Our entire waste stream would be converted into environmentally-safe organic material. The processing plant would need a minimum of twenty acres.

Financing of this project would become virtually impossible if all of our vacant properties were included in the CBRS.

My organization has been accused of representing development interests. However, the largest single category of membership in our organization is composed of retired individuals. (22% of our membership applications indicate retired under occupation). These people fear they will not be able to afford to build their retirement homes if their property is included in the CBRS. Or if their property is not in the CBRS, they fear that inclusion of all our undeveloped land in the CBRS will push property taxes beyond their ability to pay. Others who already own homes within the areas proposed for inclusion by the DOI fear that if their homes are ever damaged, they will be forced to leave the Keys because they will be unable to rebuild without FEMA insurance or the availability of FHA or VA loans.

The local business people fear prices for housing will preclude their children from staying in the Keys. With all undeveloped land in the CBRS, they fear they will be forced out of the community.

Our school system is one of the finest in the state, but the escalating cost of housing is making it difficult to retain our excellent teachers. The average price of a single family home rose 18% last year.

The Upper Keys have a significant number of professionals who live in the Keys and work on the mainland. This becomes less and less attractive as our cost of living keeps rising. Soon, our only economic base will be tourism with its inherent low wages.

Realtors question the equity of a line drawn on a map, creating a sub-class of property rights. This is property on which veterans cannot use their benefits; property which will be ineligible for actuarially-sound, federally-backed flood insurance; property that may not be developed to storm-tested FEMA standards; property on which a home may not be rebuilt after a fire. The Department of the Interior recognized this inequity, and in their "Report to Congress" suggested in "The Next Step," conducting a study to determine the feasibility of including the adjacent areas "both developed and undeveloped"!

The legislation provides an exclusion from the restrictions on federal subsidies for energy extraction. Needless to say, this is like having a red flag in front of a bull. People in the Keys cannot understand how the DOI could encourage oil drilling, exempt energy extraction from the prohibitions of this legislation, and then seek to restrict basic property rights of home owners.

At least in this case, I do not believe the DOI knows what is best for the Keys and the people of the Keys. The DOI's report to Congress envisions "elaborate vacation resorts" and "inexpensive beach shacks" replacing single family homes in CBRS areas. Many Keys environmentalists question whether this is better for the long-term environmental health of our islands than a residential community fighting to preserve its homes and livelihood.

The vast majority of Keys residents love and respect our unique and special environment. We are the shock troops in any battle to preserve our Keys. We are the first to clean trash from our beaches and reefs. The Chambers of Commerce offer educational material on the damage careless visitors cause to our reefs and surrounding waters, to sea turtles, to the manatee, and our spectacular tropical fish. Our schools teach our children and the children teach their parents of the interrelationships among the various portions of our ecosystems. Our local news media constantly remind us of our duty and responsibility to preserve and protect that which brought us here -- these special islands.

In spite of the fact that a major hurricane has not struck the Keys since 1965, we do not believe our islands are more dangerous to live in than most other coastal areas. The basic composition of the Keys is solid coral rock -- not shifting sand like true barrier islands. Erosion is not a significant problem in the Keys. Construction standards on

the Keys require boring down into this base coral, then pouring concrete with imbedded steel rebar, then placing the base floor above the 1-in-100 year base flood elevation. These standards, developed under FEMA guidance, have been proven sound. If the federal government wants to save lives in a hurricane, then they should continue to require us to build according to FEMA standards.

In closing, I do not challenge the motives of those who seek to protect the Keys, but submit to you that the vehicle is not appropriate. As a community, we have taken steps to protect the environment that go far beyond the CBRA. We currently have a delicate political and economic balance that can accomplish all goals. But introduction of the CRBS into the equation could cause results that could be very harmful to the environment and to the people of the Keys.

Before you make a judgement on this issue, I invite you to come to Monroe County, talk to long-time residents, and see how different these islands really are. People who know and understand the Keys honestly believe this approach will do more harm than good to our islands. And more importantly, it will create an atmosphere that will make it even more difficult for us to work together in the future.

We greatly appreciate this opportunity to express our concerns. Please help us preserve our island paradise, but in the process do not destroy the communities that have existed here for hundreds of years. The people of the Keys are also a unique and vital resource.

I'll be happy to answer any questions.

STATEMENT OF THE HONORABLE DANTE B. FASCELL (D-FL)
ON THE COASTAL BARRIER RESOURCE SYSTEM BEFORE THE
SENATE SUBCOMMITTEE ON ENVIRONMENT PROTECTION

July 11, 1990

Mr. Chairman, I want to thank you for having this hearing on this legislation which is of great importance to the citizens of the Florida Keys. As you know, on June 27, the House Merchant Marine Committee approved H.R. 2840, the Coastal Barrier Improvement Act, a bill which was the product of many months of consideration by the Subcommittee on Fisheries and Wildlife Conservation and the Environment and the Subcommittee on Oceanography and the Great Lakes.

The U.S. Fish and Wildlife Service estimates that the Committee-approved bill includes 47,936 acres, of which 2,780 are classified as fast-land. DOI's original recommendations, and S. 2729, would include 109,443 acres of the Florida Keys in the CBRS so I feel that the compromise we have reached in the House is fair and balanced. While I have had reservations about the implications that the original proposal would have on the Florida Keys, I do support the Committee-approved version of H.R. 2840.

The Coastal Barriers Study Group correctly stated the significance of the many natural resources of the Florida Keys. The protection of this environment has long been the subject of my concern and will continue to be

one of my foremost priorities. I am still somewhat wary of the recommended definition change of a coastal barrier to include land formations composed of carbonate-cemented and mangrove shorelines, such as the Florida Keys. When we consider such definition changes which expand the scope of any program intended to protect the environment, such as the CBRS, we must, as policy makers, do so with caution. Those of you who have been to the Florida Keys know of its sensitive and unique environment, and you know that what is good for Padre Island is not necessarily going to work in the Florida Keys. I think the carefully constructed agreement reached in the House does apply the CBRS in a manner which will prove to be effective.

One of my fundamental problems with DOI's original recommendations was that it amounted to a very indirect method of federal land use planning. In a responsible effort to control development in the Keys, Monroe County and the State of Florida, in 1986, adopted a comprehensive land use plan designed to establish the rate of growth in environmentally sensitive areas. In a county where over 90% of the lands are already under the stewardship of the federal and state governments, I firmly believe that zoning and building decisions are best left to local and state authorities in the Keys, and not to the federal government.

This particular concern has been addressed by the version of the bill approved by the House Merchant Marine and Fisheries Committee. During its consideration, Representative Gerry Studds, the Chairman on the Subcommittee of Fisheries and Wildlife Conservation and the Environment and the author of the House bill, cross-referenced our final agreement with the Monroe County land use plan. I must commend my colleague for his attention to

detail and for addressing this very fundamental concern in a satisfactory manner.

I have opposed the inclusion of the Florida Keys in the Coastal Barrier Resource System (CBRS) since it was first proposed, but I believe that the agreement reached effectively incorporates the CBRS program in the Keys. Like any compromise, some people will want more of the Keys included, and others will want none of the Keys included. However, I think the Committee-approved version of H.R. 2840 is a reasonable compromise for all involved; it would include just under half the total acreage proposed for inclusion by DOI.

I am satisfied that, after cross referencing of the maps with the Monroe County land use plan was performed, we are indeed protecting "undeveloped and unprotected" tracts of land. Twenty-nine undeveloped and unbridged keys are included, two bridged but undeveloped keys are included, and two wetland areas on keys with development are also included. As one who has represented the Florida Keys for 35 years in the House of Representatives, I urge you to respect the hard work which went into the Florida Keys provisions of H.R. 2840 by incorporating them into S. 2729.

COASTAL STATES ORGANIZATION POSITION PAPER

CSO POLICY POSITION

COASTAL BARRIER RESOURCES SYSTEM

Coastal barrier islands are a dynamic system of landforms which provide flood and erosion protection to the mainland, essential habitat for fish and wildlife, and unique recreational opportunities. The geologic processes and ecosystems of barrier islands can be easily disrupted by human activities. It is a governmental responsibility to ensure that these processes and ecosystems are preserved for present and future generations.

WHEREAS, the Coastal States Organization seeks to promote the management of coastal barriers for their use, enjoyment and preservation, the following policies and actions are endorsed and adopted as official positions of the organization.

1. The CSO supports the purposes of the Coastal Barrier Resources Act (CBRA) to minimize Federal expenditures which may have a direct and indirect affect in encouraging inappropriate development in hazard-prone areas and to conserve the natural resources of these fragile landforms.

2. The Coastal Barrier Resources System (CBRS) should be expanded to include other areas which are highly susceptible to flooding, wave action and erosion, e.g., areas within V-zones and E-zones delineated on flood insurance rate maps for the National Flood Insurance Program.

3. The areas along the Great Lakes and Pacific regions should be considered for possible inclusion within the CBRS so long as the designation of areas takes into consideration the distinct geologic and climatologic features along those coasts.

4. States must continue to have an active role in the mapping and revision process for the designation of CBRS units. The mapping of areas for designation should provide for public involvement and be consistent with land use policies and plans already adopted for those areas by approved State coastal management programs.

5. Greater oversight of Federal agency compliance is needed. The CBRA should be amended to require that each Federal agency conducting activities on or affecting coastal barriers certify on a regular basis that its activities are consistent with the purposes of the Act.

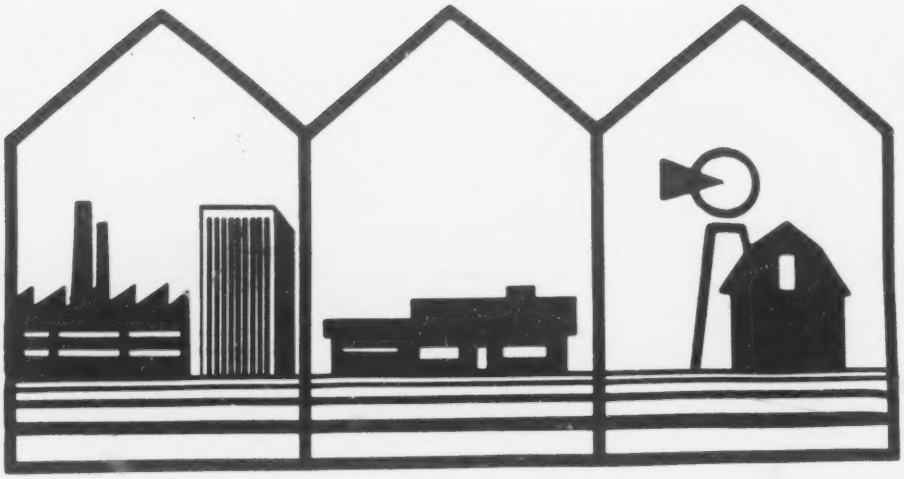
(OVER)

6. Congress should increase funding for Federal, State and local acquisition of coastal barrier properties, provide further incentives for the donation of private land, and facilitate the transferral of Federal surplus properties on coastal barriers to other governmental agencies for conservation and recreation purposes.

7. A joint Federal/State study should be undertaken to develop and promote a long-term policy for the management of coastal barriers, both developed and undeveloped. The study should consider the direct effects and secondary impacts of Federal expenditures, subsidies, income tax deductions, and regulatory actions.

END

Adopted by the CSO General Membership
July 13, 1990
Milwaukee, Wisconsin



Statement of the

NATIONAL ASSOCIATION OF REALTORS®

The Voice for Real Estate™

THE WORLD'S LARGEST TRADE ASSOCIATION

STATEMENT OF THE NATIONAL ASSOCIATION OF REALTORS®
ON S. 2729, THE COASTAL BARRIER RESOURCES ACT
SUBMITTED TO THE UNITED STATES SENATE
SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION
OF THE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

HEARING BEFORE THE U.S. SENATE

SUBCOMMITTEE ON ENVIRONMENTAL PROTECTION

COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

ON S. 2729

JULY 10, 1990

INTRODUCTION

Thank you, Mr. Chairman, for the opportunity to submit our statement for the record before the Subcommittee on Environmental Protection on the legislation S. 2729, the Coastal Barrier Resources Act Amendments of 1990. The NATIONAL ASSOCIATION OF REALTORS®, comprised of more than 800,000 members involved in all aspects of the real estate industry, has a keen interest in proposed changes to the Coastal Barrier Resources System (CBRS) and the Coastal Barrier Resources Act (CBRA) because of the dramatic effect such changes may have on the utility, marketability, and value of private property.

Our concerns extend beyond the immediate interests of the real estate industry and encompass the larger issue of protecting private property rights. The NATIONAL ASSOCIATION OF REALTORS® strongly believes in the fundamental right of all private property owners, working through local government, to determine the highest and best use of their land. Every person should have the right to acquire real property with the confidence and certainty that the value of their property will not be unduly diminished or jeopardized by governmental action at any level without the owner's expressed consent. The Federal government should minimize its involvement in land use decisions that selectively implement or withhold Federal programs, as outlined in S. 2729. Planning for the

classification and use of land must adequately consider the needs of housing and commercial growth as well as the quality of life and a healthy local economy. Therefore, the NATIONAL ASSOCIATION OF REALTORS® opposes wide scale expansion of the Coastal Barrier Resources System. We do recognize the need to identify and include new lands in the CBRS on a selective basis given a strong local role in the decision making process and adequate information dissemination to property holders.

As stated in the Department of the Interior's Final Report to Congress (1988) as required by Section 10 of the CBRA, the Atlantic Ocean and Gulf of Mexico coasts contain approximately 2,700 miles of shoreline on over 400 coastal barriers. As it exists today, the Coastal Barrier Resources System is comprised of approximately 450,000 acres of land along these shorelines. The recommendations contained in the Department of the Interior's Final Report to Congress, and as incorporated into S. 2728, would add approximately 790,000 acres of this shoreline to the CBRS.

ATLANTIC AND GULF COASTS

In its Final Report to Congress, the Department of the Interior appropriately limited the amount of acreage being recommended for inclusion in the Coastal Barrier Resources System to the Atlantic and Gulf coasts. In Section 2 of the CBRA, Congress identified problems unique to coastal systems in the eastern and southeastern portions of the country. Congress determined, in passage of the CBRA, that loss of human life, wasteful expenditures of Federal revenues, and damage to fish and wildlife in certain coastal barrier areas

necessitated prohibition of Federal expenditures in order to inhibit further development. We agree with the Department of the Interior's assessment in their Final Report to Congress that coastal barrier designations beyond the Atlantic and Gulf coasts are not consistent with the intent of Public Law 97-348. However, in its final recommendations for changes to the current CBRS, the Department of the Interior failed to thoroughly review all impacts, both environmental and economic, which inclusion in the System will have on governmental as well as private interests. Therefore, we strongly urge Congress to undertake this review before expanding the current CBRS by adopting the recommendations in S. 2729. This review process must include the direct notification of those property owners affected, as well as Congressional field hearings in each of the regions impacted, in order to provide the public an opportunity to comment directly to Congress.

GREAT LAKES COAST

The NATIONAL ASSOCIATION OF REALTORS® is concerned that the time frame established for the remapping and restudying of the Great Lakes states was extremely limited. The Department of the Interior took several years to produce more accurate maps, to study the appropriate areas, to allow for adequate public input, and to make recommendations for changes to the existing CBRS. The Great Lakes recommendations that were transmitted to Congress in 1989 did not allow sufficient time for the Department of the Interior to comprehensively review all the information including accurate economic and environmental analyses of those areas proposed for inclusion in the CBRS, nor was there an appropriate period for public comment. It is inappropriate, at best, to have allowed both the Secretary

of the Interior and the public such short notice to act on the serious business of preventing certain private property owners from utilizing government programs available to everyone else.

It is evident that the final maps transmitted to Congress did not incorporate many, if any at all, of the public comments the Department of the Interior had received for the Great Lakes proposal. Our members provided comments to the Department of the Interior in a good faith effort to express concern with the Great Lakes maps. The public comments provided on the Great Lakes maps were done without the benefit of environmental and economic assessments of those proposals, and without the benefit of locally held hearings by the Department in an attempt to work out some of these concerns.

WEST COAST

The NATIONAL ASSOCIATION OF REALTORS® has great concern with language contained in H.R. 2840, the Coastal Barrier Improvement Act of 1989, requiring the Department of the Interior to "restudy" and "remap" the Pacific coast states for their possible inclusion in the Coastal Barrier Resources System. It must be remembered that the CBRS was developed and enacted to address problems unique to the eastern and southern coastal systems. Congress originally recognized that other coastal systems, such as those located on the Pacific shoreline, do not experience the same oceanographic and climatological forces as those systems on the Atlantic and Gulf coasts. These areas also do not experience the same development pressures and thus do not present the degree of hazard to human life, fish and wildlife that Congress believed existed on other coastal barrier

systems. Thus, Congress appropriately limited coverage of the CBRS to the Atlantic and Gulf coasts. We strongly urge the Senate not to add language authorizing the remapping and restudy of the Pacific Coast.

ASSOCIATED AQUATIC HABITAT

The designation of associated aquatic habitat, as outlined by the Department of the Interior's recommendations and as included in the legislation S. 2729, should have been done on a more scientifically precise basis and in a manner that better reflects the multiple purposes of the Coastal Barrier Resources Act. While it may be appropriate to include adjacent upland portions of a coastal barrier in the Coastal Barrier Resources System, these delineations seem to have been done without a precise methodology. Further documentation about those areas that are typically subject to wind, wave, and tidal energy from storms hitting the coastal barrier is needed. The report also lacks details regarding how the other goals of the CBRA, such as protecting human life and minimizing expenditure of Federal funds, are being met by recommending for inclusion such large portions of associated aquatic habitat.

NATIONAL FLOOD INSURANCE PROGRAM

A uniform policy for administering the National Flood Insurance Program should be adopted, eliminating the existing double standard which denies insurance coverage for certain flood prone areas, such as coastal barriers, and wetlands, yet retains coverage for the remainder of the United States subject to flooding. Legislative actions that alter the Federal flood insurance program

must ensure legitimate property rights and reasonable development opportunities are not abridged.

In the Department of the Interior's Final Report to Congress, the statistics used for flood damage and flood insurance relate to coastal communities and not specifically to coastal barriers. These figures are misleading in that only a very small portion of these coastal communities, on the average, are coastal barriers. Indeed, if the Department of the Interior has such information for coastal barriers, its publication would be most useful. Congress must recognize that this type of data as identified in the Department's report, is not a current description of the situation on coastal barriers, but of coastal communities.

It is important to note that applicants for Federal flood insurance under the National Flood Insurance Program (NFIP) for all new construction pay the full actuarial rates that reflect the risks, so the government is minimally at risk with all new properties coming under the NFIP. Under the NFIP, participating areas and individuals must utilize flood plain areas in a prudent manner and can incorporate flood proofing techniques into site planning and building renovation. The NFIP imposes stringent building construction safety standards on all new construction and substantial improvements in flood hazard areas where their insurance is available. This has resulted in much safer construction in the Nation's flood plain areas than would have taken place absent the requirements of that program. This safer construction has had the positive effect of reducing the potential for loss in such areas.

If Federal flood insurance is not available in those areas proposed for inclusion in the Coastal Barrier Resources System, it is likely that any development that does occur without the benefit of Federal funds will also not have the benefit of safety margins as are assured by participation in the NFIP. Adherence to the NFIP regulations provides a substantial measure of protection for property and life (a key component of the Coastal Barrier Resources Act). We remain concerned that denial of Federal flood insurance may result in the development of substandard and unsafe housing along the Nation's coasts truly increasing expenditures at all levels of government as well as jeopardizing human health and welfare.

Critics of the use of Federal flood insurance along the coasts have both overestimated the costs of the NFIP, and underestimated the real economic and other costs of arbitrarily closing off large areas to development. In the National Wildlife Federation and National Tax Payers Union April 17, 1989 report entitled, "Turning the Tide on Wasted Tax Dollars," (Miller and Stroup) it appears that several of the assumptions made are incorrect according to data provided by the Federal Emergency Management Agency with respect to the National Flood Insurance Program. The current NFIP "penetration of the market" is approximately fourteen percent, not ninety percent as assumed for the purposes of identifying deficits that exist (page 15). The $55 average deficit (page 14) does not seem to have been derived from current NFIP data which indicate an operating surplus for "V Zones" in Pre and Post FIRM construction, rather it appears to be the composite of all NFIP policies including inland areas. Taking the data issued by the NFIP in the document entitled, "National Flood Insurance Program Loss and Expense Experience Accident Period 1978-1988," (appendix A) it

is quite evident that the figures identified in the NWF report for both high and low development cases are incorrect. As an example, the NWF assumes that each of the 19,400 acres in the low development case will have development at the rate of 5 structures (or 5 potential policies) per unit, for an approximate total of 100,000 potential policies. Using current NWF assumption of 19,400 additional acres in the low development case, the actual approximate market penetration rate of fourteen percent, and the NFIP data for V Zone Post FIRM and V Zone Pre FIRM policies, it is easy to see that a surplus of approximately $2,445,100 would exist per year for Post FIRM V Zone policies with the surplus carried out over 20 years of approximately $48,902,000, and an approximate surplus of $614,600 per year for Pre FIRM V Zone policies with the surplus carried out over 20 years of approximately $6,146,000.

In another paper, delivered at the Coastal Zone '89 Conference in Charleston, South Carolina on July 13, 1989, it appears that the NWF comes up with some very different conclusions than the April 17, 1989 report. The paper, entitled "Building in the Coastal Barrier Resources System" (Jones and Stolzenburg), attempts to assess the development that has occurred on CBRS units since 1982. Through an examination of aerial photographs for 157 units from 1986 to 1988, the NWF found that there was a 40.7% increase in the number of structures on these units, 52.5% of which occurred in Florida. The report also concluded that "more extensive research is needed to fully assess the impact of CBRA on coastal development." Although one of the purposes of the Act was to discourage development by denying the availability of Federal flood insurance and Federal financial assistance, the study found that the prohibition of Federal flood insurance did not preclude development.

NOTIFICATION AND INCLUSION

We are deeply concerned with a provision contained in Section 4 of the bill which would allow the Secretary of the Interior, upon the recommendation of any governor, to automatically include areas in the CBRS without the benefit of public notice and comment or Congressional review. Specifically no provision has been made for public notice and comment on these recommendations for inclusion to the CBRS. It is important to note that while the maps will be on file for public inspection, once they have been filed, the areas become part of the CBRS. In the past, although we have not been satisfied with the notification process, there has been an opportunity for comment through notification in the Federal Register. This section also addresses the need to notify each State and county or equivalent jurisdiction in which a unit is located, while no similar provision is made to notify private property owners. Since the legislation confronts the notification issue with respect to government entities, we believe that it is equally important to notify those private property owners whose land is also being included in the system.

CONCLUSION

In summation, changes to the Coastal Barrier Resources System are controversial and will have a significant impact on private property owners. In order to thoroughly review the successes and problems of the Coastal Barrier Resources System, Congress must provide the public with ample opportunity to express concern or agreement with those areas proposed for inclusion or deletion to the System including comprehensive field hearings in all those areas impacted,

as well as direct notification of affected property owners. We urge Congress to consider all comments offered by affected private property owners, and realize the true impact of inclusion in the Coastal Barrier Resources System to those individuals. You should be aware, that private citizens whose homes and properties may be included in the CBRS, have yet to be notified by the Federal government of this pending legislation. In fact, they have not been notified through the mail, nor have they received copies of maps identifying their property. It is now up to Congress to ensure that these citizens are fully aware of the impacts of this legislation. We strongly urge each member to notify affected constituents, through mailings or town meetings, that their property is being considered for inclusion within the CBRS. Congress should slow down the legislative process in order to allow time for notification of private property owners, for field hearings, for more careful mapping, and for more individualized analysis of areas considered for inclusion in the CBRS.

We ask Congress, is it fair that property owners located in high risk inland flood plains are able to receive Federal funds for development while those property owners who reside along the coasts of the United States are denied this opportunity? And in this time of ever increasing housing costs, is it fair to cut off opportunities for home ownership to those individuals who wish to reside along the coasts of this country? Congress must fully examine the actual economic impacts inclusion in the Coastal Barrier Resources System has on our local communities, State and Federal governments and weigh these impacts against marginal environmental benefits and the ability denial of Federal funds has to protect human lives. We recognize that inclusion in the System does not prevent development, however, we maintain that the effects of denial of Federal funds may

indeed place a greater likelihood for the adverse impact on the Federal budget and the greater potential for hazard to human life, fish and wildlife.

And finally, we agree with Elise Jones and William Stolzenburg of the National Wildlife Federation that there indeed is a need for further research of the impacts of the Coastal Barrier Resources Act before Congress can consider changes to the Coastal Barrier Resources System.

We look forward to working closely with you on this issue of vital importance.

33-662 0 - 90 - 5

APPENDIX A

JUNE 1989

NATIONAL FLOOD INSURANCE PROGRAM
LOSS AND EXPENSE EXPERIENCE
ACCIDENT PERIOD 1978 - 1988

	Zones VE,V1-V30 Post FIRM	Zones VE,V1-V30 Pre FIRM	Unnumbered Zone A Post FIRM	Unnumbered Zone A Pre FIRM	Zones AE,A1-A30 Post FIRM	Zones AE,A1-A30 Pre FIRM	Zones B,C,X	Emergency Program	Program Totals
1) Earned Exposures (earned policy terms)	105,049	$29,642	313,407	1,484,922	1,304,309	5,955,749	5,957,993*	3,145,321	20,449,041
2) Average Earned Premium	$378.96	$242.71	$230.67	$190.93	$143.49	$179.67	$128.84	$109.72	$253.55
3) Number of Paid Losses	1,415	9,684	1,142	22,352	5,718	110,415	87,474	102,648	348,849
4) Average Loss Payment	$8,504.73	$8,376.78	$8,145.42	$8,172.16	$9,839.85	$7,801.82	$7,647.12	$5,552.85	$7,225.41
5) Loss Ratio	0.30	0.63	0.16	0.65	0.30	0.84	0.67	1.65	0.80
6) Loss Frequency per 100 Policies	1.3	1.8	0.4	1.6	0.4	1.9	1.1	3.3	1.7
7) Average Loss Cost per Policy	$114.64	$152.85	$29.68	$324.14	$43.27	$148.75	$86.60	$181.85	$123.20
8) Other Expenses (average per policy)									
a) Agent Comm./Allowance	$58.16	$37.45	$3..47	$29.46	$22.[illegible]	$26.80	$19.88	$16.91	$23.69
b) Loss Adjuster	$5.99	$8.96	$1.54	$5.84	$1.69	$6.44	$4.02	$10.32	$5.98
c) Servicing Facility/ WYO Operating Allowance	$23.51	$23.51	$23.51	$23.51	$23.51	$23.51	$23.51	$23.51	$23.51
9) Operating Surplus/ (Deficit) per Policy on Paid Basis*	$174.65	$21.91	$123.22	$7.68	$52.84	($28.83)	($5.17)	($122.67)	($27.73)

*The operating surplus is the policyholder contribution in periods of relatively better loss experience towards reserves used to fund high loss years.

APPENDIX B

EVALUATING THE COASTAL BARRIER SYSTEM EXPANSION PROPOSAL

SUMMARY OF THE ANALYSIS

- The Miller study ignores one-half of the calculation since it does not count the possible economic loss of the development of the fastland to be added to the CBRS.
- We can roughly estimate these impacts (1987 dollars) on the order of $18.6 billion to $31 billion which exceeds the $10 billion savings computed by Miller. Since home prices have been increasing at an average of 5 percent per year over the last two years, the 1989 dollar value ranges from $20 to $34 billion. Of course, Miller's estimates would probably increase as well.
- These impact figures do not even include the potential tax base increase and resulting federal, state, and local taxes that would be collected due to development.
- However, the impact estimates assume that withdrawal of the subsidies (expanding the CBRS) would result in no development of the area and that developers cannot develop anywhere else, in lieu of the CBRS areas. This assumption can be challenged but nevertheless still rings true in many places where desirable coastal areas are scarce and very costly to develop without Federal programs.
- Nevertheless, our basic economic argument strongly indicates the economic losses from not developing probably exceed the Federal subsidy costs, indicating expanding the CBRS is not a good idea.

OVERVIEW

A major shortcoming of the study "Turning the Tide on Wasted Tax Dollars" by H. Crane Miller is that it does not count the possible economic loss of non-development of the fastland proposed for inclusion in the CBRS. It is possible to roughly estimate the maximum loss from nondevelopment using several assumptions and the proposed parameters of the study.

If coastal barriers are added on all coasts, this would contribute 81,063 acres of fastland (dryland) and 439,258 acres of wetland. In the high development case, which provides the largest benefit from decreased subsidy, the savings totals $10.8 billion. We will focus on that case since it generates the largest benefit.

Using the high development case assumption of development or urbanization of 50 percent of fastlands, the full system would include 40,530 acres of dry land that could be developed/urbanized. We will not attempt to construct an estimate for wetlands development since specific housing unit assumptions are not given. Using their assumption of an average density of 5 dwelling units per dryland acre suggests some 200,000 new units potentially could be developed. In previous studies, (see Appendix) we have estimated the average contribution to the economy of a new home at about $155,000 in 1987 dollars, including multiplier effects which are spread-out over time. Thus, a rough estimate of the potential economic loss if no private development occurs in the absence of the federal programs for insurance, severs, roads, and bridges is $31 billion. This clearly exceeds the $10 billion in benefits to the Federal Treasury from not developing the areas.

Some Caveats Regarding the Estimates

We are implicitly assuming that the withdrawal of the Federal subsidies would cause no private development to occur. However, if only one-half of the urbanization occurs, there is still a $15 billion

benefit to development. Another assumption involves the possible substitution of non-CBRS lands for development which would not have occurred if the CBRS additions were not made. This analysis implies that developer supplies of land are totally fixed including to the CBRS lands. That is, they cannot develop anywhere else. This is a major problem with any spatial development analysis, that is, to assume that land parcels across space are not fungible. A sightly better assumption is that developers have detailed plans for all parcels, including the proposed CBRS additions which cannot be altered without significant cost to all development. Thus, the loss of the CBRS lands cannot be replaced by land somewhere else. This is probably true for certain kinds of recreational and resort properties. It also costs to re-allocate local land resources and to go through the development planning process. Thus, there will be some process costs to developers who had planned to develop these areas and find they cannot. Furthermore, the price of developable land in the immediate vicinity should rise, raising future land development costs, and ultimately the prices paid by consumers.

A small weakness in the $155,000 new housing construction cost estimate is that it includes multiplier effects of $44,000. These occur over time (perhaps up to two years) and are estimated based on the entire economy. However, the average construction cost estimate of $77,000 is an "injection" into a local economy that occurs within a year (97 percent of new starts are completed and sold within a year), thus, it has a definite impact in a relatively short period of time.

In terms of current costs, the median price of a new home increased from $96,500 in April 1987 to $117,000 in April 1989 or a 21 percent increase. Assuming costs rose proportionately, the $155,000 is more on the order of $187,500 in current dollars. Thus, even if we cut-off our multiplier effects, we still have a construction cost of about $93,000 leading to an effect of $18.6 billion, ignoring other impacts from successive rounds of spending by recipients of the factor payments.

Under the high development scenario the construction of a residence would have to generate average values (in present value terms) of $54,000 to just equal the savings to the Treasury from non-development efforts. It seems quite likely that most development including commercial and high density residential should be able to average $54,000 across all 200,000 parcels. To this extent, it is very likely that the contribution to the economy, especially local economies, from developing these land would exceed the Treasury savings.

A more stringent test of whether development is more beneficial than non-development is if the taxes generated over time from development would offset the future value of the subsidies. In other words, could the additional benefit generate sufficient federal taxes to pay for the subsidies? This is too difficult to answer without a model, although, given enough time the development should. Furthermore, in analyzing the case, we have ignored any development of wetlands. To the extent, these areas could be developed (approximately 220,000 acres) for residential or business purposes, there should be substantial benefits.

DISCUSSION OF THE PROPOSAL SPECIFICS

The Coastal Barrier Resources Act of 1982 prohibited all new federal expenditures and financial assistance within the Coastal Barrier Resources System (CBRS), with certain exceptions. Any new developments within the barrier would not have benefit of federal subsidies for roads, bridges, causeways, wastewater management, water supply, treatment and distribution, disaster relief, flood insurance, shore protection, and similar measures. The CBRS includes the Atlantic and the Gulf of Mexico coasts. A proposal is before Congress to expand the existing CBRS on the Atlantic and Gulf of Mexico Coasts, and include the Great Lakes and the Pacific Coasts in Washington, Oregon and California.

Summary of the Study

The author of the report being reviewed here argues that the 1982 act takes a *laissez faire* stance in that it does not restrict development but rather removes government subsidies for these areas. However, all land outside the CBRS are eligible for government subsidies. Thus, the federal government must feel that the differential treatment of the CBRS is warranted due perhaps to the increased incidence in this area of natural hazards and environmental destruction. Whether this extension of this differential is warranted has not been determined. This study only estimates part of the components necessary to evaluate the proposal.

The report produced for the National Wildlife Federation by H. Crane Miller estimates the cost savings that could be realized by the federal government if the coastal barrier resources system were expanded to include eligible areas identified by the U.S. Department of Interior. The report estimates a cost savings to the federal government of between $1 billion and $9.3 billion if the system were extended to include the additional acreage recommended by the U.S. Department of the interior on the Atlantic and Gulf of Mexico coasts. Further expansion to include coastal barriers of the Great Lakes and the Pacific Coastal barriers is estimated to increase savings to between $1.9 billion and $10.8 billion.

METHODOLOGY OF THE STUDY

The amount of acreage to be added to the coastal barrier system is based on the Department of Interior's recommendation.

The estimates are based on a number of assumptions and are derived for two scenarios. The low development case assumes 50 percent development of the fastland acreage in each unit. The high development case assumes 50 percent development of the total fastland and estimated additional wetlands.

The assumptions include:

- Average density on the developed acreage would be 5 dwelling units per acre;
- Average occupancy would be 4.3 persons per dwelling unit;
- 80 gallons per capita per day water use;
- 80 gallons per capita per day sewage flow;
- only island units with greater than 100 acres of fastlands and with no current bridge or causeway access are considered potential candidates for bridges or causeways.

Estimated costs are based on cost information provided by government agencies.

Comments on Evaluating the Proposal

A full evaluation of a government proposal should:

(1) Estimate the present value of the total private and social costs.

(2) Estimate the present value of the total private and social benefits of the proposal.

(3) Determine whether the net present value of the benefits minus the costs are positive or negative.

(4) If the net present value is negative, then the proposal should not be considered.[1]

(5) If the net present value is positive, then proposal should be considered.

The study by Miller cannot be used to fully evaluate the merits of the proposal because it estimates only a part of the benefits of the proposal (i.e., the cost savings to federal government), and does not estimate the cost of the proposal at all (i.e, lost economic activity, etc.)

Total Benefits of the Proposal

The author indicates that the study only estimates part of the direct cost savings to the government. For example, estimates for sewers, wastewater treatment facilities, etc. represent only construction costs and do not include planning, engineering, rehabilitation, repair and other costs in which the federal government might share. Moreover, the cost savings do not include consideration of the number of lives which might be saved and benefits to the environment. To the extent that the study's estimate is correct, it understates the total benefits of expanding the CBRS.

Total Costs of the Proposal

The study does not address the present value of the costs of the proposal. These costs are associated with losses in income and tax revenue due to the foregone development in the proposed additions to the CBRS. The enactment of the proposal would eliminate any additional employment which would have occurred due to the construction involved in development of the area, additional employment due to ongoing commercial activity generated by the development, and any multiplier effects associated with the development which would have occurred.

A report by the NATIONAL ASSOCIATION of REALTORS®, Real Estate in the U.S. Economy, estimated the output multiplier for the real estate industry to be 3.74. This means that a change in the final demand for real estate by each $1 would generate $3.74 worth of additional final output. This is because an increase in the demand for real estate would generate increases in the output of many intermediate goods and services that are required to produce the additional quantity demanded. Moreover, increases in employment would lead to additional income spent on other goods and services localities, and any net increase in tax revenue due to increased economic activity. The proposal would limit demand for real estate which would occur if the barrier is not extended, but we cannot say that the full multiplier effect due to the proposal is 3.74. This is because the money that would have been spent on purchasing properties in the proposed area would be diverted elsewhere, producing these other multiplier effects.

The revenue loss to the government due to limited development resulting from the proposal should also be considered. The development would expand the property tax base, and lead to additional federal, state and local income and sales tax collections.

Other costs to be considered involve the windfall losses to ongoing or future projects. If land was purchased and is in the process of being developed, or is to be developed in the future, then enactment of the proposal would lead to windfall losses to the current owners of the land. Thus, unless specific provisions are included in the proposal to protect these types of land/property owners, they would be unfairly harmed if the proposal were to become law.

---

[1]However, the proposal to take away government subsidies to additions to the CBRS may still be considered if the money could be better used in other government programs, or if the money would be better off in taxpayers' hands (i.e., tax them less).

Net Present Value

Whether the benefits of the proposal would exceed the costs cannot be evaluated here, but it is suspected that the answer will differ for different areas under the proposal. In some areas, the probability of natural hazards and the potential environmental destruction might be so great as to encourage non-development of the area. However, in other areas, the risks associated with these events, and the subsidy from the government may be minimal in comparison with the benefits of additional economic activity that might arise from development.

Conclusion

The study by Crane Miller for the National Wildlife Federation is not sufficient to evaluate the proposal. A full evaluation would weigh the total benefits of the proposal against the total costs. Miller's study only accomplishes a small part of this exercise. Much more analysis is required to come to a valid conclusion.

APPENDIX

Contribution of Home Sales to GNP

Each housing transaction generates significant expenditures before, at the time of, and after the sale. The NATIONAL ASSOCIATION OF REALTORS® estimates that each existing single-family home sold in 1987 contributed nearly $21,000, and each single-family new home sold contributed nearly $127,000 to GNP. The result: in 1987 single-family home sales activity directly and indirectly generated economic activity totalling $222 billion, approximately 5 percent of GNP.

A detailed look at these estimates shows the widespread impact the decision to purchase a home has on the economy. (See Table 1.) Before a sale, owners typically spend a little more than $1,000 on repairs and maintenance in efforts to show their homes in the best possible light. In some cases, home sellers will directly employ professionals to do this work with subsequent employment and output effects. In other cases sellers will purchase supplies from local businesses and do the work themselves. For new homes, the obvious expenditure before the sale is the cost of constructing the housing unit. This average was $77,409 in 1987. Land costs and builder profits push the average new home price to the consumer well over $125,000.

For the most part, direct expenditures at the time of sale focus on the services applied to the sale. They typically includes fees paid to real estate agents, movers, attorneys, appraisers, termite and, structural inspectors, surveyors, property insurance companies, title insurance companies and even local governments. On average, these expenditures totaled $10,000 for each resale transaction in 1987 and $6,725 for each new home sale.

Finally, in the months following a home sale transaction, recent movers make expenditures to personalize their home. Government statistics indicate that recent movers typically outspend homeowning households that did not move. For 1987, the NATIONAL ASSOCIATION OF REALTORS® estimates this difference to have been $2,108 for resale homes and $2,411 for new homes in the 12 months immediately following a home purchase. These after-sale expenditures range from major capital improvements to the purchase of numerous smaller items. Analysis of consumer expenditure survey data collected by the Bureau of Labor Statistics suggests that recent buyers outspend nonmover homeowners on the following goods and services:

- Nonrecreational household furnishings (furniture; lines; minor and major appliances; etc.)
- Capital improvements (building or modernization of rooms, garages, or wings; construction of patios, driveways, or walkways; heating or air conditioning improvements, etc.)
- Miscellaneous consumption (telephone service; service and maintenance contracts, etc.)
- Recreational household furnishings (stereos, television, radios, etc.)
- Clothing

101ST CONGRESS
2D SESSION

S. 2729

To amend the Coastal Barrier Resources Act, and for other purposes.

IN THE SENATE OF THE UNITED STATES

JUNE 13 (legislative day, JUNE 11), 1990

Mr. CHAFEE (for himself, Mr. BAUCUS, Mr. DURENBERGER, Mr. MITCHELL, Mr. LIEBERMAN, Mr. HUMPHREY, Mr. COHEN, Mr. GLENN, Mr. ROTH, and Mr. KOHL) introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

---

A BILL

To amend the Coastal Barrier Resources Act, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "Coastal Barrier Resources Act Amendments of 1990."

SEC. 2. DEFINITIONS.

(a) UNDEVELOPED COASTAL BARRIER.—Section 3(1)(A) of the Coastal Barrier Resources Act (16 U.S.C. 3502(1)(A)) (hereinafter in this Act referred to as the "Act") is amended—

(1) by striking clause (i); and

(2) by redesignating clauses (ii) and (iii) as clauses (i) and (ii), respectively.

(b) OTHERWISE PROTECTED AREAS.—Section 3(1) of the Act (16 U.S.C. 3502(1) is amended—

(1) by striking "(i)" immediately before "contain few"; and

(2) by inserting a period immediately following "ecological processes" and striking the balance of the sentence.

(c) SYSTEM.—(1) Section 3(6) of the Coastal Barrier Resources Act (16 U.S.C. 3502(6)) is amended to read as follows:

"(6) The term 'System' means the Coastal Barrier Resources System established by section 4.".

(2) Section 5(a) of the Coastal Barrier Resources Act (16 U.S.C. 3505(a)) is amended by striking "Coastal Barrier Resources".

SEC. 3. COASTAL BARRIER RESOURCES SYSTEM.

Section 4 of the Coastal Barrier Resources Act (16 U.S.C. 3503) is amended to read as follows:

"SEC. 4. COASTAL BARRIER RESOURCES SYSTEM.

"(a) ESTABLISHMENT.—(1) There is established the Coastal Barrier Resources System, which shall consist of—

"(A) those undeveloped coastal barriers located on the coasts of the United States that are identified and generally depicted on the maps that are entitled 'Coastal Barrier Resources System' and—

"(i) numbered A01 through T12 (but excluding maps T02 and T03), and dated September 30, 1982;

"(ii) numbered T02A and T03A, and dated December 8, 1982;

"(iii) numbered NY01 through MN01 (but excluding maps MI10 and MI23), and dated June 1989; and

"(iv) numbered ME01 through VI34, and dated December 1988 (including those undeveloped coastal barriers that—

(I) are within the boundaries of an area established under Federal, State, or local law, or held by a qualified organization as defined in section 170(h)(3) of the Internal Revenue Code of 1954, primarily for wildlife refuge, sanctuary, recreational, or natural resource conservation purposes, or owned by the Department of the Defense or the United States Coast Guard and were previously included in the System; or

(II) are designated on such maps as federally or privately protected).

"(B) undeveloped coastal barriers owned by the United States that are—

"(i) determined to be excess property under the terms of the Federal Property and Administrative Services Act of 1949 (40 U.S.C. 471 et seq.);

"(ii) incorporated into the System pursuant to paragraph (2) of this section; and

"(iii) identified and generally depicted on maps filed and amended in accordance to subsections (b) and (c) of this section; and

"(C) undeveloped coastal barriers that are incorporated into the System pursuant to paragraph (3) of this section, as identified and generally depicted on maps filed and amended in accordance with subsections (b) and (c) of this section.

"(2) Prior to transfer or disposal of excess property under the Federal Property and Administrative Services Act of 1949 (40 U.S.C. 471 et seq.) that may be an undeveloped coastal barrier, the Administrator of General Services shall consult with and obtain from the Secretary a determination as to whether and what portion of the property constitutes an undeveloped coastal barrier. Not later than one hundred and

eighty days after the initiation of such consultation, the Secretary shall make and publish notice of such determination. Immediately upon issuance of a positive determination, the Secretary shall—

"(A) prepare a map of the undeveloped coastal barrier portion of such property; and

"(B) file and distribute copies of the map in accordance with subsection (b) of this section.

Upon the filing of such map in accordance with subsection (b) of this section, such portion of the excess property shall be deemed to be included in the System.

"(3)(A) As soon as practicable after the date of enactment of the Coastal Barrier Resources Act Amendments of 1990, the Secretary shall provide to the Governor of each State located on the Atlantic, Gulf or Great Lakes coasts of the United States copies of maps depicting those undeveloped coastal barriers that are owned by such State or a local government within such State and not previously included in the System.

"(B) If the Governor of any State elects to have included in the System any portion of an undeveloped coastal barrier owned by such State or a local government within such State and not previously included within the System, the Secretary shall—

"(i) prepare a map of the undeveloped coastal barrier; and

"(ii) file and distribute copies of the map in accordance with subsection (b) of this section.

Upon the filing of such map in accordance with subsection (b) of this section, such coastal barrier shall be deemed to be included in the System.

"(C) The Secretary is authorized to promulgate regulations setting forth the procedures to be followed by Governors when electing to have undeveloped coastal barriers included in the System under subparagraph (B) of this paragraph.

"(b) SYSTEM MAPS.—(1) As soon as practicable after the date of enactment of the Coastal Barrier Resources Act Amendments of 1990, the maps referred to in paragraph (1) of subsection (a) and, as soon as practicable after the date on which a map is prepared under paragraph (2) or (3)(B) of subsection (a), the maps referred to in paragraphs (2) and (3)(B) of subsection (a) shall be filed with the Committees by the Secretary, and each such map shall have the same force and effect as if included in this Act, except that corrections of clerical and typographical errors in each such map may be made. Each such map shall be on file and available for public inspection in the Office of the Director of the United States Fish and Wildlife Service, Department of the Interior, and in

other appropriate offices of the United States Fish and Wildlife Service.

"(2) As soon as practicable after the date on which a unit is included in the System, the Secretary shall provide copies of the maps referred to in paragraphs (1), (2), and (3)(B) of subsection (a) to the chief executive officer of—

"(A) each State and county or equivalent jurisdiction in which a System unit is located;

"(B) each State coastal zone management agency in those States which have a coastal zone management plan approved pursuant to section 306 of the Coastal Zone Management Act of 1972 (16 U.S.C. 1455) and in which a System unit is located; and

"(C) each appropriate Federal agency.

"(c) BOUNDARY REVIEW AND MODIFICATION.—(1) For System units within States which have, on the date of enactment, a coastal zone management plan approved pursuant to section 306 of the Coastal Zone Management Act of 1972 (16 U.S.C. 1455), within ninety days after the date on which such unit is included within the System, each appropriate State coastal zone management agency may submit to the Secretary proposals for minor and technical modifications to the boundaries of System units as depicted on maps referred to in subsection (a) as are consistent with the purposes

of this Act and necessary to clarify the boundaries of said System units.

"(2) Within one hundred and eighty days after the date on which a unit is included within the System, the Secretary may make such minor and technical modifications to the boundaries of System units as depicted on the maps referred to in subsection (a) as are consistent with the purposes of this Act and necessary to clarify the boundaries of said System units.

"(3) The Secretary shall, not less than thirty days prior to the effective date of any such boundary modification made under the authority of paragraph (2), submit written notice of such modification to—

"(A) each of the Committees; and

"(B) each of the appropriate officers referred to in paragraph (2) of subsection (b).

"(4) If, in the case of any minor and technical modification to the boundaries of System units made under the authority of this subsection, an appropriate chief executive officer of a State, county or equivalent jurisdiction, or State coastal zone management agency to which notice was given in accordance with this subsection files comments disagreeing with all or part of the modification and the Secretary makes a modification which is in conflict with such comments, or if the Secretary fails to adopt a modification pursuant to a pro-

posal submitted by an appropriate State coastal zone management agency under paragraph (1), the Secretary shall submit to the chief executive officer a written justification for the failure to make modifications consistent with such comments or proposals.

"(5) Upon request of the appropriate officers referred to in paragraph (2) of subsection (b) and at least once every seven years, the Secretary shall conduct a review of the maps referred to in subsection (a) and, in consultation with the appropriate officers referred to in paragraph (2) of subsection (b), make such minor and technical modifications to the boundaries of the System units as are necessary solely to reflect changes that have occurred in the size or location of any System unit as a result of natural forces.".

SEC. 4. EXCEPTIONS TO LIMITATIONS ON FEDERAL EXPENDITURES.

Section 6 of the Coastal Barrier Resources Act (16 U.S.C. 3505) is amended—

(1) in subsection (a)(2), by striking the semicolon and adding at the end thereof "if such disposal is consistent with the purposes of this Act;";

(2) in subsection (a)(6)(E), by striking "305 and 306 of the Disaster Relief Act of 1974 (42 U.S.C. 5145 and 5146)" and inserting "402, 403, 502 and 503 of the Robert T. Stafford Disaster Relief and

Emergency Assistance Act (42 U.S.C. 5170a, 5170b, 5192 and 5193)"; and

(3) in subsection (b), by striking "the date of enactment of this Act" and inserting "the date on which the relevant System unit or portion of the System unit was included within the System".

SEC. 5. CERTIFICATION OF COMPLIANCE.

Section 7 of the Coastal Barrier Resources Act (16 U.S.C. 3506) is amended—

(1) in the first sentence, by striking "Director of the Office of Management and Budget shall, on behalf of each Federal agency concerned," and inserting "head of each Federal agency concerned shall" in the first sentence; and

(2) in the second sentence, by striking "House of Representatives and the Senate pursuant to the schedule required under the Congressional Budget and Impoundment Control Act of 1974" and inserting "Committees and the Secretary not later than sixty days after the end of each fiscal year".

SEC. 6 AUTHORIZATION OF APPROPRIATIONS.

Section 12 of the Act (16 U.S.C. 3510) is amended to read as follows: "There is authorized to be appropriated to the Department of the Interior no more than $1,000,000 for

each of fiscal years 1991 and 1992 for purposes of carrying out sections 4 and 6.".

State of Rhode Island and Providence Plantations
EXECUTIVE CHAMBER, PROVIDENCE

Edward D. DiPrete
Governor

July 17, 1990

The Honorable Max Baucus
United States Senate
Committee on Environment and Public Works Chairman,
Subcommittee on Environmental Protection
The Capitol
Washington, DC 20510-6175

Dear Senator Baucus:

I am pleased to present the following statement in behalf of the State of Rhode Island for inclusion in the record of the July 11, 1990 Subcommittee Hearing on Senate Bill 2729, the Coastal Barrier Resources Act Amendments of 1990.

Rhode Island is pleased to support the expansion of the Coastal Barrier Resources System provided by Senate 2729 and is heartened that the bill embraces a number of the concepts which Rhode Island has consistently recommended.

There is no portion of Rhode Island's natural endowment more treasured and revered by its citizens than the states's 421-mile coastline. While they comprise a small portion of the total coastline, barrier beaches and the salt ponds and wetlands they shelter are, at once, our most vulnerable and ecologically valuable coastal resources. Their instability and susceptibility to hurricanes make these areas unsuited for permanent structures and human occupancy, but their natural beauty and the recreational amenities they offer have caused coastal barriers to be among the state's most coveted real estate.

Our good fortune in not witnessing the widespread devastation of a severe hurricane in over a generation has, unfortunately, created a false sense of security on the part of those seeking to build on coastal barriers and other low lying coastal areas.

Sadly, the lesson of the 1954 and 1983 hurricanes will eventually have to be relearned at high cost by this new generation of barrier beach occupants. Much of this cost will be borne by the public through federal expenditures for disaster assistance and flood insurance claims payments. Exposure under the National Flood Insurance Program in seventeen coastal cities and towns, in Rhode Island, including all of those on Block Island and Rhode Island Sound, and extending up Narragansett Bay to Warwick on the west and Barrington on the east, totaled $643.8 million as of March 31, 1990. Coverage in these communities has increased in dollar value by 129 percent since 1981. This increase largely reflects inflation in property values; but since the total number of policies also grew by roughly 13 percent, the data also indicate that building within flood risk areas continues.

In just three oceanfronting communities in southern Rhode Island (Westerly, Charlestown, and South Kingstown) coverage under the NFIP amounted to $182.7 million on March 31, 1990 (up 150 percent from $73.3 million in 1980). A sizable portion of this coverage is on expensive oceanfront homes located on developed coastal barriers and around the coastal ponds which back them. These properties, and the federal insurance coverage on them, will be at considerable risk of loss of during the next hurricane.

The Coastal Barriers Act represents the first affirmative step at limiting, within carefully defined, extremely hazardous and environmentally valuable areas, the growth in federal risk exposure under the Flood Insurance Program and unnecessary costs under other development subsidy programs. It is a means to avoid, on these last remnants of the once extensive natural coastline, the repetitive cycle of ill-advised construction, followed by inevitable damage in other high hazard coastal areas. The only pragmatic approach for avoiding this slippery slope of continually increasing federal subsidies to coastal barrier development is to avoid support of the initial development of these areas. Once investments have been made and the areas populated, it is virtually impossible, politically and practically, to cut these areas loose from subsidies, or get the people to relocate once a barrier is developed. One only need examine the resistance and difficulties state officials in South Carolina are facing trying to prevent rebuilding in areas ravaged by Hurricane Hugo to realize this.

On this basis, Rhode Island urges swift approval and enactment of Senate 2729. It is prudent, sensible, and eminently fair to the taxpayers of this Nation that the concept embodied in the Coastal Barriers Act, namely, that the federal government will not be a supporter of the cycle of development and investment which damages and destroys these sensitive coastal features, be extended to other coastal barriers where it applies just as legitimately.

Rhode Island is proud to have been one of the initial advocates of limiting federal development assistance as a means of protecting fragile coastal areas. Prior to the conception of the Coastal Barrier Resources Act, in May, 1981, the Rhode Island State Planning Council expressed its concern that the availability of federally-subsidized National Flood Insurance was contributing to the intensification of development along the state's barrier beaches, and urged the state's Congressional Delegation to work for the prohibition of federal flood insurance coverage for new construction on high hazard, coastal barrier areas.

In 1982, through the initiative and hard work of our Senator Chafee and others, the Coastal Barriers Act was realized, which substantially broadened the prohibition of federal development assistance for undeveloped barriers.

Subsequent to enactment of the Coastal Barrier Resources Act, Rhode Island has consistently advocated the maximum applicability of the Act's current provisions to this state's coastal areas, and recommended amendments to expand the Act's scope. In February 1983, the State Planning Council provided the Department of the Interior with additional coastal areas to be added to the Coastal Barrier Resources System in the state. Again in June, 1985 the State Planning Council provided the Department of the Interior with a comprehensive set of recommendations for extending the Act's provisions to 40 additional coastal areas in Rhode Island, for expanding the designated units to encompass all aquatic habitats associated with them, for including barriers with less than one-quarter mile of shoreline, and for including so-called "otherwise protected" areas.

In a second Official State Position in October, 1987, the Planning Council reiterated the state's support for significant expansions to the Coastal Barrier Resources System in Rhode Island, and for changes to the Act which would expand areas included throughout the designated system.

Because of our support for the Coastal Barriers Act from its inception, we are pleased that many of the recommendations we have offered over the years are being heeded and have reached the stage of legislative deliberations.

We would like to single out for comment several of the particulars of Senate 2729 which directly affect Rhode Island:

We fully support and commend the expansion of the Coastal Barrier Resources System provided under Section 3 of the bill. This provision will add nine new units and expand all but two of the eleven existing units of the Coastal Barrier System in Rhode Island, and will increase the total land and water subject to the provisions of the Act to nearly 9,000 acres. Many of the units to be added to the System in Rhode Island are small barriers backed by salt marshes. While small, these areas provide important environmental functions and recreational opportunities. Apart from their size they met the definitional criteria of undeveloped barriers, but were overlooked in the mapping prepared for the initial designations in 1982, because they were deemed too small to be of national significance. Through Rhode Island's persistence and through the commendable cooperation of the Department of Interior's Coastal Barrier team and the Congressional Staff, we are extremely pleased that Senate 2729 will include many of the areas the state has recommended for the System.

Rhode Island also supports Section 3's inclusion, within the Coastal Barrier System, of federally and privately-owned "otherwise protected" undeveloped barriers. The state has advocated the inclusion of these areas out of concern that future sales or changes in use, particularly of the privately-held protected areas, could open such areas to unsound development. The inclusion, by law, of privately-protected, undeveloped barriers provides surety that the Act will apply to them regardless of future changes in ownership or usage. This is a sounder approach, in our opinion, than the vaguely-defined "automatic inclusion-if threatened" mechanism recommended in the Department of Interior's 1989 Report to the Congress.

We note that Section 3 of the bill authorizes inclusion of state and locally-protected coastal barriers following their election by the Governor of each state, from a list to be furnished by the Secretary of the Interior.

Inclusion of state and local protected areas has been a question of considerable concern and some contention in Rhode Island, as it has been nationally. Rhode Island has repeatedly urged, both as a general policy and in our recommendations on specific candidate areas, the inclusion of state and local protected areas on coastal barriers. The majority of such areas in Rhode Island are intensively utilized as recreational beaches, and many contain facilities developed with public monies, including federal grants.

In making our past recommendations to include these areas within the Coastal Barrier System we have carefully weighed the consideration that federal assistance for maintenance, improvement, and possibly some expansion of these recreational facilities would be desirable in the future. We were also aware that there is a slight risk that certain future projects, desired by the state and/or locality and their citizens, might not receive federal support due to their environmental consequences. Nevertheless, we have recommended the inclusion of these areas because it is our feeling that the state, and its political units, have a responsibility to lead by example in the sound stewardship and proper management of coastal barriers. We put credence in the exceptions provided under Sections 6(a)(3), 6(a)6(C), and 6(a)(6F) of the Act, that essential, environmentally-benign projects will continue to be assisted, and we accept the environmental review and specialized expertise which the Department of the Interior consultation process would provide for such projects.

With regard to the process outlined in Senate 2729 for including state and local protected areas, we feel that the gubernatorial election procedure is workable, and fully expect that it will result in the inclusion of most, if not all, state and local protected undeveloped coastal barriers in Rhode Island.

In concluding, let me thank you for your continuing efforts in advancing the expansion of the Coastal Barrier Resources System, and for this opportunity to present the views of the State of Rhode Island on this important legislation. We look forward to swift enactment of the Coastal Barrier Resources Act Amendments of 1990.

Sincerely,

Edward D. DiPrete

Edward D. DiPrete
Governor

cc: Sally T. Dowling, Director
Governor's Policy Office
Anna F. Prager, Senior Policy Analyst
Governor's Policy Office
Daniel Varin, Chief
Office of State Planning
Department of Administration